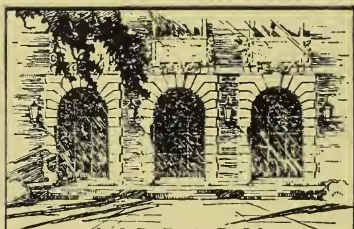


ILLINOIS HISTORICAL SURVEY

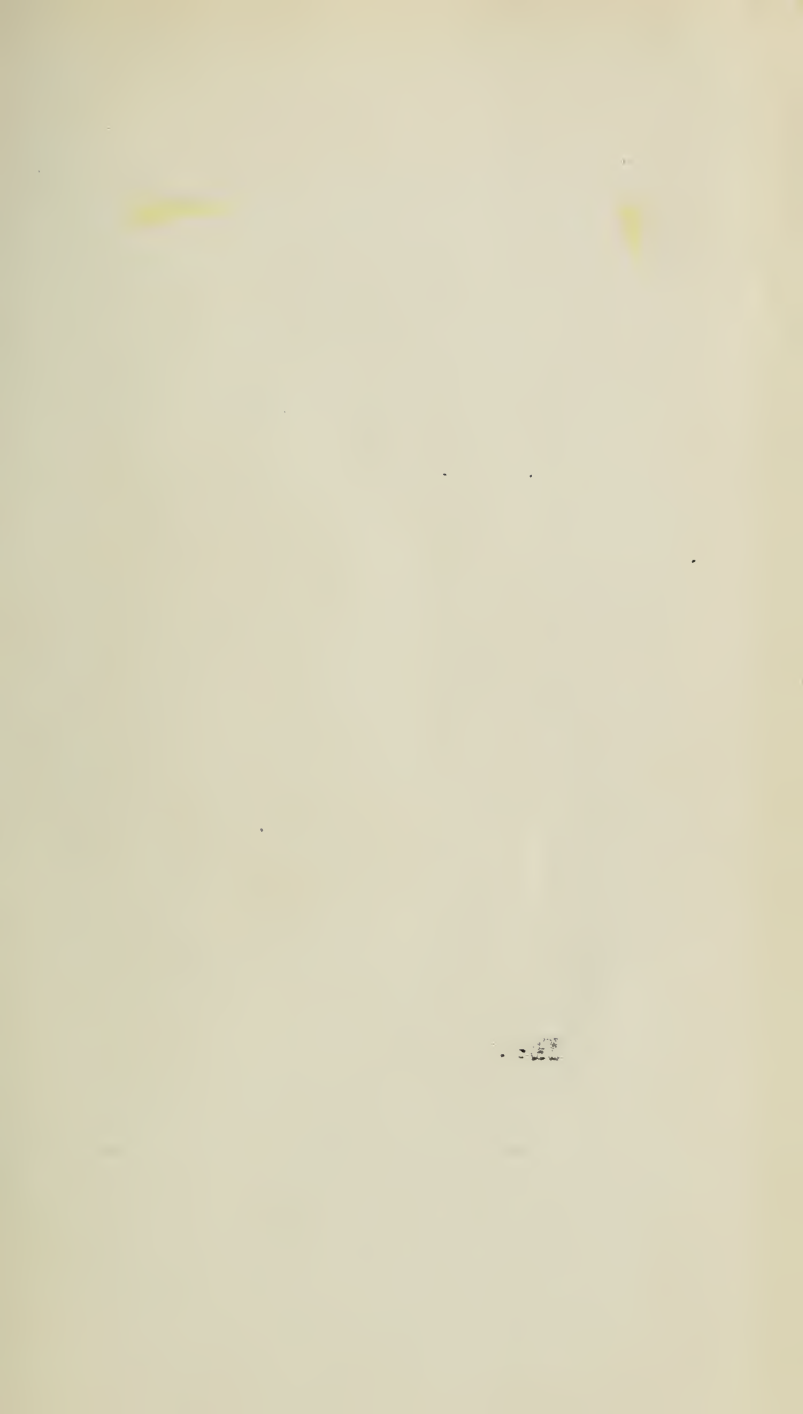



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ILLINOIS



PROGRESS

1921-1928

LEN SMALL, *Governor*



LEN SMALL, *Governor*
1921-1928

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Biography

GOVERNOR LEN SMALL of Kankakee was first elected in 1920 by the greatest majority ever given a gubernatorial candidate, and re-elected in 1924 by a similar majority. He was born on a farm near Kankakee July 16, 1862, the son of Dr. A. L. Small, well-known physician of Kankakee County, and Calista Currier Small. He has resided in Kankakee County all of his life; was educated in the public schools and normal and business college. He was married in 1883 to Ida Moore, who died June 26, 1922. He has three children, Budd L. Small, who is in charge of the Governor's farm at Kankakee; Leslie C. Small, managing editor of the Kankakee Daily Republican; and Mrs. A. E. Inglesh.

He early became interested in farming, and with the proceeds earned teaching school, made his first purchase of land. From this beginning was built up the large and modern farm which he now operates. In addition to his interest in farming and stock raising, Governor Small is president of the First Trust & Savings Bank of Kankakee. He has led in the development of the Kankakee Inter-State Fair, at Kankakee, and the Illinois State Fair at Springfield, now admitted to be two of the leading agricultural fairs in the country.

Governor Small's record of public service extends over a large portion of the past 35 years. In 1895, he was elected supervisor of Kankakee County and the following year, Clerk of the Circuit Court. He was appointed member of the Board of Trustees of the Kankakee State Hospital by Governor John R. Tanner, and for 8 years was president of that board. He served one term as State senator and in 1904 was elected State treasurer. In 1910 he was appointed by President Taft as Assistant United States Treasurer in charge of the sub-treasury in Chicago. He again served the State as treasurer in

1917 and 1918, and at the end of his term, returned to the State in interest earned on State funds, the largest amount ever turned in on State funds by any State treasurer up to that time.

His veto of appropriations made by the various sessions of the Legislature, and the economy practiced by the Code departments under his direction and guidance, have saved to the State of Illinois a sum probably greater than that saved by all the Governors in the history of Illinois.

Governor Small is the third Illinois chief executive to succeed himself in office. A prominent plank in his 1920 platform was "good roads." In the year 1921, his first year in office, 414 miles of paved roads were built, which was more than had ever been built in Illinois in one year. This record of construction was bettered in each succeeding year and in 1924 the world's record for road-building by one state in one year was shattered, when Illinois built 1,230 miles of pavement.

In his campaign for re-election in 1924, Governor Small advocated the issuance of an additional \$100,000,000 bond issue for the extension of Illinois' hard road system, principal and interest of these bonds, like the original \$60,000,000 bond issue authorized in 1918, to be paid by automobile license fees, without direct taxation. This bond issue was ratified by the people, and from its proceeds additional roads have been built, until today Illinois leads the World in road-building, and its 7,000 miles of completed concrete pavement exceed the mileage of any other state in the Union.

State of Illinois

LEN SMALL, *Governor*

THE GOVERNOR is the head of the executive branch of the State government and upon him devolves the duty of correlating departmental activities, planning constructive work and devising means by which the State may serve the people. During the past 8 years, Governor Small has kept in close personal touch with the men appointed by him to carry on the business of the State through its various Code departments.

The construction of more than 7,000 miles of concrete paved roads, the building of the Illinois Lakes-to-the Gulf Waterway, the humane and economical operation of the 26 great public welfare institutions, the care and maintenance of the States' dependents, numbering more than 35,000, the prevention of diseases and epidemics through the Department of Public Health, the eradication of bovine tuberculosis and the control of plant diseases by the Department of Agriculture, the management and upbuilding of the Illinois State Fair, now admittedly the outstanding agricultural fair of this country—all of these and many other achievements of the State government during the past 8 years, have been made possible only through the whole-hearted cooperation and personal guidance of Governor Small. The business of the State is conducted through eleven Code departments, the directors of which are appointed by the Governor, and they are responsible to him for the management of their departments.

Not a small task devolving upon the Governor, and one of far-reaching importance, is the consideration of the thousands of appeals for executive clemency which are directed to him. It is not difficult to understand what a burden must rest upon the shoulders of a man who by a mere stroke of the pen may save a condemned prisoner

from death. Yet, during Governor Small's administration, although justice has been tempered with mercy, the interests of the individual have not been allowed to overshadow the interests of society as a whole.

Many other routine duties are prescribed by law for the Executive. The appointment of all commissions and of all officers under the Civil Administrative Code, not elected, is made by the Governor. He may appoint judges of courts when vacancies occur and the unexpired term is less than a year. In case the unexpired term is for more than a year it is his duty to call a special election to fill the vacancy. The appointment of United States senators, in case of vacancy, is also vested in the Governor.

One of the Governor's tasks, and one of great responsibility, is the approval or veto of all legislation enacted by the General Assembly. It is his duty to recommend to the Legislature the enactment of laws needed for the progress of the State. Governor Small was the sponsor of the \$100,000,000 road bond issue which has made possible the expansion of Illinois' road building program. He has also recommended legislation for the equalization of taxes, and through his efforts legislation has been enacted which promises to bring much-needed relief.

As commander-in-chief of the Illinois National Guard, Governor Small has on several occasions called out units of that body when it was deemed necessary for the peace and security of the State.

Governor Small's administration of State affairs has been humane, and has been brought into close touch with all of the people, so that all have enjoyed its advantages and benefits. In short, during the past 8 years, Illinois has met and fulfilled its obligations to its people. In times of storm and flood, as in other crises, our State has shown a commendable spirit of helpfulness, and has brought aid to the wounded, comfort to the homeless, and the restoration of confidence to the community.



STATE HOUSE, SPRINGFIELD
Completed in 1888

The Department of Finance

ALBERT C. BOLLINGER, *Director*

W. D. HARDY, *Assistant Director*

COL. A. E. INGLES, *Administrative Auditor*

THE DEPARTMENT OF FINANCE is the clearing house for all financial transactions of the Civil Administrative Code. All requisitions issued must be approved, and all vouchers checked and audited under the supervision of the Administrative Auditor. The complete powers as given by the Civil Administrative Code to the Department of Finance are herewith quoted:

1. To prescribe and require the installation of a uniform system of bookkeeping, accounting and reporting for the several departments;
2. To prescribe forms for accounts and financial reports and statements for the several departments;
3. To supervise and examine the accounts and expenditures of the several departments;
4. To examine, at any and all times, into the accuracy and legality of the accounts, receipts and expenditures of the public moneys and the disposition and use of the public property by the several departments;
5. To keep such summary and controlling accounts as may be necessary to determine the accuracy of the detail accounts and reports from the several departments, and to prescribe the manner and method of certifying that funds are available and adequate to meet all contracts and obligations;
6. To prescribe uniform rules governing specifications for purchases of supplies, the advertisement for proposals, the opening of bids and the making of awards, to keep a catalogue of prices current and to analyze and tabulate prices paid and quantities purchased;

7. To examine, at any and all times, the accounts of every private corporation, institution, association or board receiving appropriations from the General Assembly;

8. To report to the Attorney General for such action, civil or criminal, as the Attorney General may deem necessary, all facts showing illegal expenditures of the public money or misappropriation of the public property;

9. To examine and approve, or disapprove, vouchers, bills and claims of the several departments, and such as are by law made subject to the approval of the Governor and referred to it by the Governor, and no voucher, bill or claim of any department shall be allowed without its approval and certificate;

10. To prescribe the form of receipt, voucher, bill or claim to be filed by the several departments with it;

11. In settling the accounts of the several departments, to inquire into and make an inspection of articles and materials furnished or work and labor performed, for the purpose of ascertaining that the prices, quality and amount of such articles or labor are fair, just and reasonable, and that all the requirements, express and implied, pertaining thereto have been complied with, and to reject and disallow any excess;

12. To prepare and report to the Governor, when requested, estimates of the income and revenues of the State;

13. To prepare and submit to the Governor biennially, not later than the first day of January preceding the convening of the General Assembly, a State budget;

14. To publish, from time to time, for the information of the several departments and of the general public, bulletins of the work of the government;

15. To investigate duplication of work of departments and the efficiency of the organization and administration of departments, and to formulate plans for the better coordination of departments.

During the past eight years the activities of the Finance Department have been materially increased.

The additional duties consist in the main in the added work required to handle the accounts of the Highway building program, the Waterway program, the rehabilitation of State institutions, and the Motor Fuel Tax Law—all these made a great expansion of work to be performed by the Department.

MOTOR FUEL TAX

The administration of the Motor Fuel Tax Law, commonly known as the Gasoline Tax law was committed to the Finance Department by the General Assembly and became effective August 1st, 1927.

This law provided for a tax of two cents on each gallon of gasoline sold by the distributor and was to be remitted by him to the State once each month. The law also provided that the money paid in tax upon gasoline used for any purpose other than the propelling of vehicles upon the public highways was to be refunded to the consumer upon application to the Department.

The law further provided that the funds so collected should be distributed each year, one-half to the Road Fund in the State treasury for highway building, and the remainder to be distributed to the several counties of the State in proportion to the motor license fees paid by them, and to be used also for highway purposes.

The forms, and systems of accounting used in the many states* having a similar tax were procured, and after many conferences with the committee named by the gasoline dealers, a complete set of report and office forms was drafted.

An appropriation for this Division was provided, but because of the attack made upon the law at that time, it was not used.

* All the states of the Union excepting New York, New Jersey and Illinois have a Gas Tax.

It is unfortunate that the law was declared unconstitutional, as the funds collected would be of the greatest service to both the State, and the counties in carrying on the important road and bridge improvement work, particularly in connecting all communities not on a bond issue road.

During the five months that the law was effective more than six millions of dollars were collected, and fifteen thousand individual claims totalling close to \$200,000 were received and adjusted.

Increase in State Business

The volume of business transacted during the last eight years has grown to large proportions as shown by the following table:

Year	Vouchers	Expenditures
1920	89,381	\$ 33,739,334
1921	106,382	37,551,712
1922	109,029	39,616,372
1923	119,844	52,231,168
1924	145,213	85,732,112
1925	175,002	76,535,294
1926	144,148	46,198,673
1927	179,183	50,906,537
	<hr/>	<hr/>
	1,068,182	\$422,511,202

At the very beginning of the present administration the Administrative Auditor inaugurated the policy of promptly auditing all invoices that were subject to discount, thereby saving large sums for the State in discounts. How effective this policy has been is revealed by the following table showing discounts taken from purchases made by the State:

Year	Discounts	Year	Discounts
1921.....	\$160,169.00	1925.....	\$ 310,627.84
1922.....	250,100.05	1926.....	131,377.70
1923.....	295,047.09	1927.....	225,680.42
1924.....	337,227.58	1928.....	271,128.82
			<hr/>
			\$1,981,358.50

When one considers the total amount of all the appropriations and the number of accounts involved in the distribution of the same, it can well be said that of all the State administrations none have made such a record as the present one in keeping expenditures within allotted appropriations. There has been no large deficiency asked from the Legislature during the last seven and one-half years. This is unprecedented in the history of past administrations and will reflect for all time to come the constant and watchful care of those officials whose duty it is to scan the requisitions and vouchers that are presented for payment. To add further to this record there was during this administration \$16,737,720 returned to the Treasury in unexpended balances.

The Department of Finance also prepares the biennial budget for presentation to the Governor. This of course applies not only to the Civil Administrative Code departments, but to all elective officers as well. This work entails a study of all appropriations for every purpose, also a study of the State's financial resources, as well as the State tax levies for general revenue. Much time is consumed in hearings with directors and heads of divisions. Comparisons must be made with past appropriations and expenditures; salaries of all officials and employees are reviewed; and the details of all expenses for every purpose must be carefully considered in a new budget.

The Department of Finance also prepares the annual reports of all the departments under the Civil Administrative Code. This makes a large volume, and is filled with information of vital importance to all who are interested in State affairs. These reports are requested from far and wide by states, universities, libraries, civic bodies, and the Federal Government, where they are kept on file.

TWO GENERAL DIVISIONS

The Department may be divided into two general divisions in process of the daily operations of the office.

First, the division where the requisitions are passed upon and the vouchers checked and verified, and second, the bookkeeping division, where all the accounts are charged with their daily expenditures. The accuracy of this work is made as nearly perfect as bookkeeping can be made, since it must agree with the books of the Auditor of Public Accounts and State Treasurer in final comparisons, and all must balance to the last penny.

TAX COMMISSION

The Tax Commission was created by an Act of the Fifty-first General Assembly to supersede the State Board of Equalization, and was approved June 19, 1919.

All the powers and duties imposed upon the State Board of Equalization and upon the Auditor of Public Accounts, in relation to the assessment of property for taxation, were transferred to, and were to be exercised and reformed by, the Tax Commission. For the purposes of administration only, the Tax Commission is under the jurisdiction of the Department of Finance, requiring the signature of the Director of Finance and the seal of that Department to verify its legal documents when such are offered as evidence in the Courts.

Almost the entire period since its creation has been confined to the present administration. The work performed by the Commission covers a vast amount of detail when applied to all the property in a great State like Illinois, and much depends upon both the ability and judgment of the members of the Commission in adjusting valuations and equalizing assessments. That this work has been effectively done is the universal verdict of the public in general.

For the purposes of taxation, property assessments were equalized on a basis of one-half value up to and including the year 1926. The last General Assembly, the Fifty-fifth, changed the basis of taxation to the full value of assessed property, and likewise changed the rate to con-

form to the increased value, lowering it in like proportion. The assessments as equalized by the Commission are herewith given for the years 1920 to 1928, and also the State tax rate as fixed for each year covering the period named:

Year	Assessed valuation	Year	Assessed valuation
1920.....	\$4,234,951,430	1924.....	\$4,081,878,149
1921.....	4,201,674,685	1925.....	4,194,760,417
1922.....	4,000,497,373	1926.....	4,195,581,136
1923.....	4,090,509,504	1927.....	8,762,051,780

In his first message to the General Assembly, Governor Small called attention to the necessity of immediate amendment of our revenue laws, so that a more just and equitable assessment of property might be had, and with that end in view, directed the Tax Commission to use its broad and comprehensive powers given under the law for the purpose of relieving tax burdens where possible.

At the suggestion of Chairman W. H. Malone, because of many unequal assessments of property made in Cook County by the assessors, the last extra session of the General Assembly verified the authority imposed by the Act creating the Tax Commission giving them the Authority to require new assessments of property where discrepancies appeared. This Act on the part of the Tax Commission and its Chairman, in the interest of taxpayers, is a credit both to themselves, and to the administration of which they are a part, and will be far-reaching in the future in the assessment of all property.

The Department of Agriculture

STILLMAN J. STANARD, *Director*

E. D. TURNER, *Assistant Director*

WHEN ONE state of all the forty-eight that form the Union does more for the advancement of the farming industry than any other, such action justifies a patriotic pride of citizenship in that progressive state. Illinois lists that attainment among the achievements of State government within the past few years. The Department of Agriculture of the State of Illinois has been increased and expanded in the scope of service placed upon it until it is today the greatest State Department of Agriculture in the United States.

The citizens of Illinois have brought about this growth. Through constructive legislation, enacted by the General Assembly, the public repeatedly reposed its confidence in this Department. The Legislature has enacted measures that, with executive approval, enabled the Department of Agriculture to render greater service during each year of its recent history.

In keeping with the policy of economy, evident in all branches of public service under the administration of Governor Small, the Department of Agriculture has not sought any increase in the total of appropriations. It has, however, increased the volume of its service, and is accomplishing more per dollar spent today than it ever has before.

To outline and define the duties assigned to this branch of State government would be almost an endless task. To mention only briefly a representative group of the activities underway in each of the nine Divisions through which the Department functions, and some that

the laws have delegated to the Department, and to the cabinet member who directs the service, is all that can be attempted in the pages that follow.

Farming is, always has been, and always will be subject to many disadvantages. Livestock suffers from disease. Plants are prey to blights and insects. These ills must be combated if the farmer is to prosper. The product of the farms, when marketed, provides the sustenance of an increasing urban population. Unless it goes to the consumer pure and wholesome, and is handled in a sanitary manner, the consumer, and ultimately the producer too, will suffer.

There are concerns and individuals that would, if uninformed or unrestrained, misrepresent the products of the farmers' toil, to the detriment of all concerned.

To improve conditions in the State of Illinois in general—in cities as well as on the farms—the Illinois Department of Agriculture carries on extensive service to promote quality production and to regulate conversion and the distribution of the varied products of the farms.

A general idea of the way this work is carried on, and how it has improved during the present administration, will be conveyed and illustrated herewith:

DIVISION OF FOODS AND DAIRIES

WALTER R. KIMZEY, *Superintendent*

To guard the food supply of Illinois against impurity, unwholesomeness, adulteration and misrepresentation is a part of the gigantic task assigned to the Division of Foods and Dairies. To see that dairy products are collected and distributed under sanitary conditions and that the quality is up to standard, is another portion of its work. In addition, many commodities that are foreign to the human diet are subjected to State regulations through this service.

This work is carried on under two distinctive yet related methods of procedure—promotional service, to in-



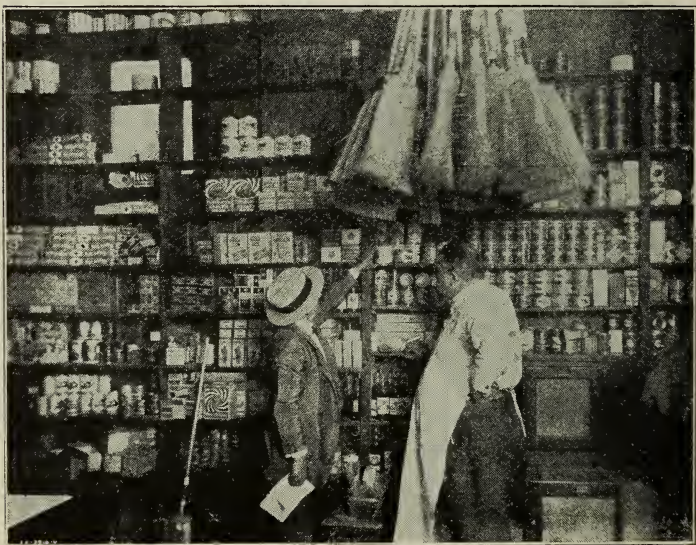
Meriting confidence and gaining cooperation of food dealers—
inspectors' first duty

duce the public to conduct its food and dairy business properly, and regulatory, to compel, when necessary, obedience to requirements of the law. Of the two forms of procedure, in this as in all other classes of the service that have regulatory powers, the policy is to educate the public into conformity with the statutes rather than to force obedience through civil courts. The latter method, unfortunately, is sometimes necessary.

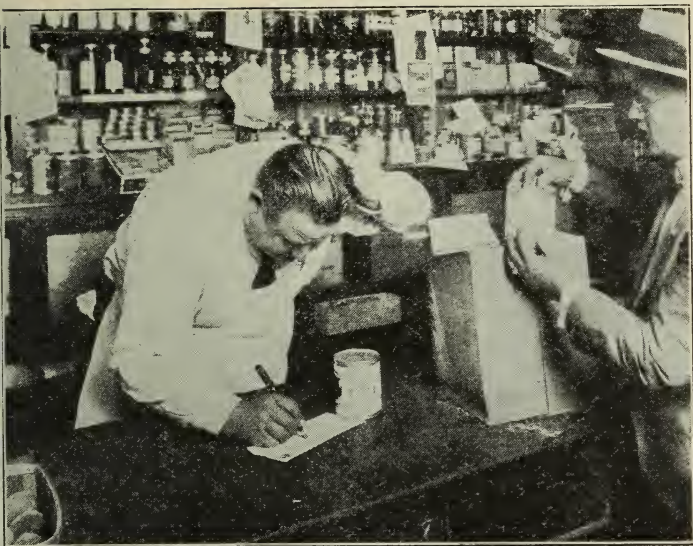
Chicago, the greatest food distribution center in the world, is the headquarters of this branch of State service. There, at the source, a staff of trained investigators inspects the food that moves to points throughout the State. And, in downstate counties, another force of able men finds out what kinds of foods are offered. They require cleanliness where food is handled. They take samples, and at two laboratories chemists pass upon the legality of foods and drinks the samples represent.



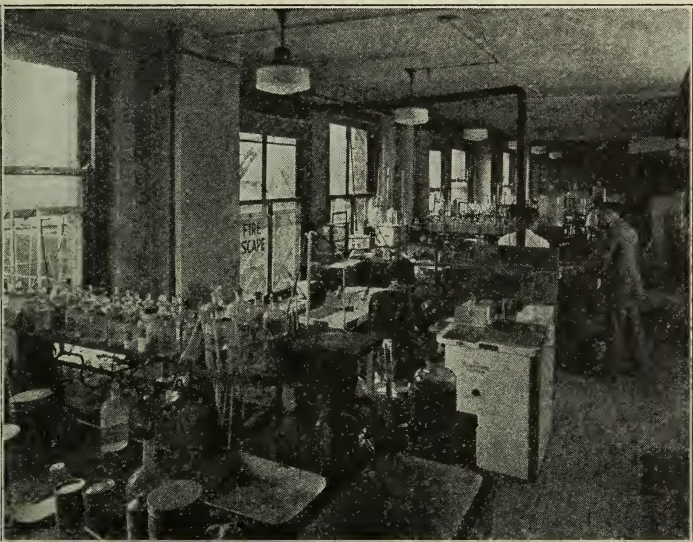
Food exposed to dust and flies and filth draws a courteous request to correct



Food suspected of unwholesomeness is bought and used as samples for laboratory analysis



One sample, sealed, goes to the laboratory ; another, like it, is held by the dealer



Skilled chemists test food samples for adulterants, impurities or misrepresentation



Violators are given private, unembarassing hearings before officials first



Repeated violations call for court proceedings, convictions and fines

At Springfield, a food laboratory has been added to the facilities of the Division, during the present administration. It makes tests of supplies used at the State institutions, and analyzes feeding stuffs, commercial fertilizers, paints, oils and many other articles of commerce, and serves to regulate the cream-buying business of the State by examining and licensing cream testers and checking their analysis of cream. Examinations are also held at various points throughout the State.

Sixteen distinct laws and many departmental regulations are administered by the Foods and Dairies Division forces. Records of each employee's performance are compiled, as the result of a rule recently promulgated by the Director of the Department. From statistics that record their work, it is noted that this service has increased about 1,000 inspections per man per year, within the past three years. Similar evidence of consistent, well directed efforts, also exists in the analytical and other branches of the service.

DIVISION OF ANIMAL INDUSTRY

D. W. ROBISON, *Superintendent*

DR. F. A. LAIRD, *Chief Veterinarian*

This branch of the Department's service is for the advancement of the livestock industry. It tends to prevent disease among domestic animals and fowls. As such a service, it conserves an important asset of the State.

Livestock disease control and prevention calls into service the veterinary science; members of that profession, in Illinois, gain accreditation and approval at the hands of officials in this Division.

Livestock diseases, roughly speaking, are either common ailments or come under the class of occasional outbreaks that, unrestrained, would become widespread epidemics and cause serious losses. This service deals with both general classifications.

The Illinois Bovine TUBERCULOSIS WAR MAP

STATE OF ILLINOIS

LEN SMALL, *Governor*

DEPARTMENT OF AGRICULTURE

STILLMAN J. STANARD, *Director*

E. D. TURNER, *Ass't. Director*

DIVISION OF ANIMAL INDUSTRY

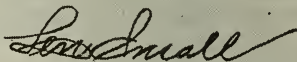
D. W. ROBISON

Superintendent.

Dr. F. A. LAIRD,

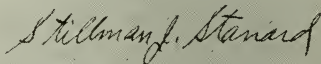
*State Sanitary
Veterinary Inspector*

"The eradication of bovine tuberculosis in Illinois is of sufficient importance to engage the thought and attention of every citizen of the state."




Governor of the State of Illinois


"The continuation of the splendid cooperation this department of state government is now receiving from the counties, veterinarians, cattlemen, agricultural organizations and the press, will result in the practical elimination of tuberculosis from the herds of Illinois."




Director of Agriculture

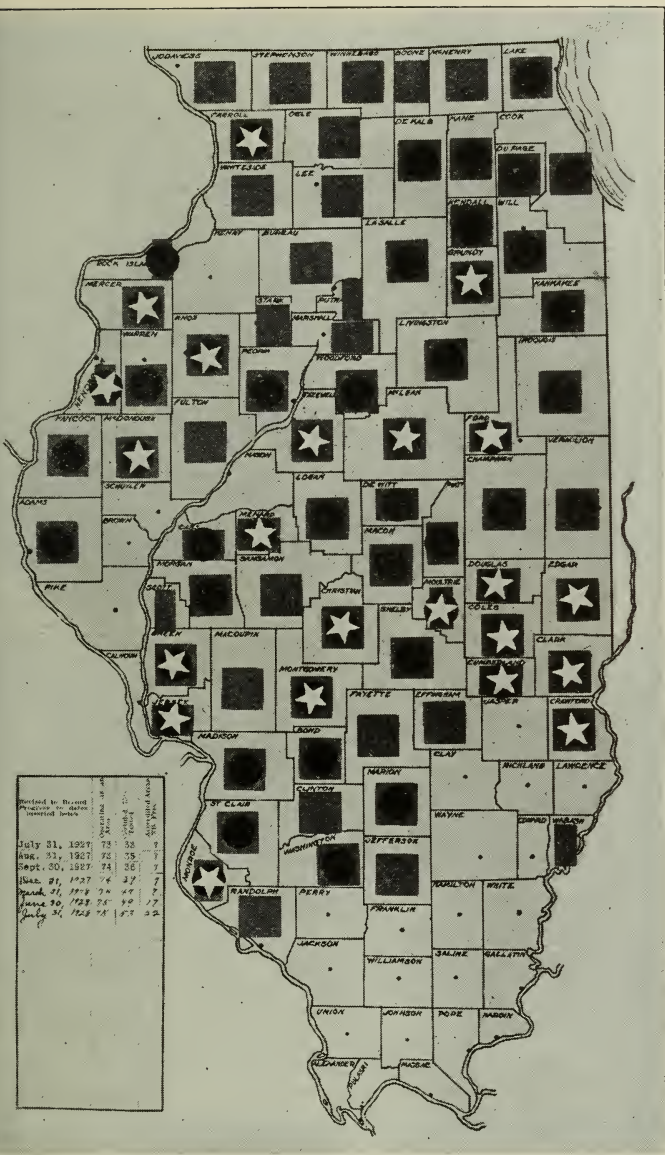
LEGEND

Counties operating under the area plan are designated by affixing a red square sticker, thus: 

Counties certified as having 75% of all herds of breeding and dairy cattle pronounced T. B. free are designated by the addition of a blue seal: 

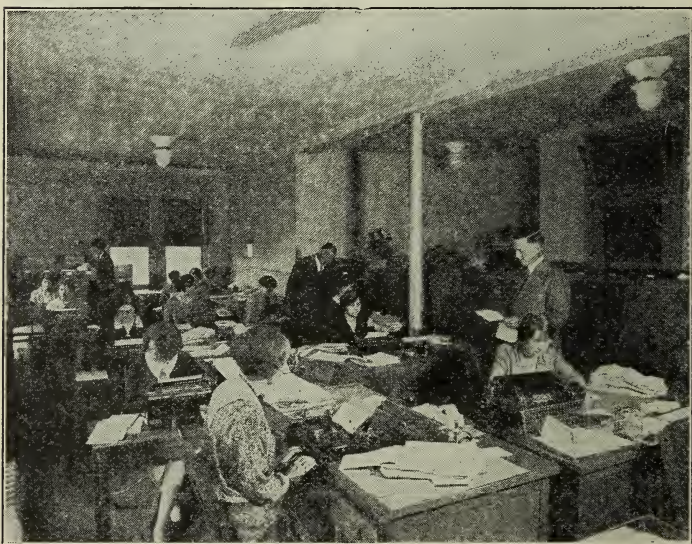
Counties accredited as having all herds of breeding and dairy cattle tested and free from tuberculosis, are designated by the addition of a gold star 

Write the Department of Agriculture, Springfield, Ill., for information that will be helpful in encouraging eradication of tuberculosis.

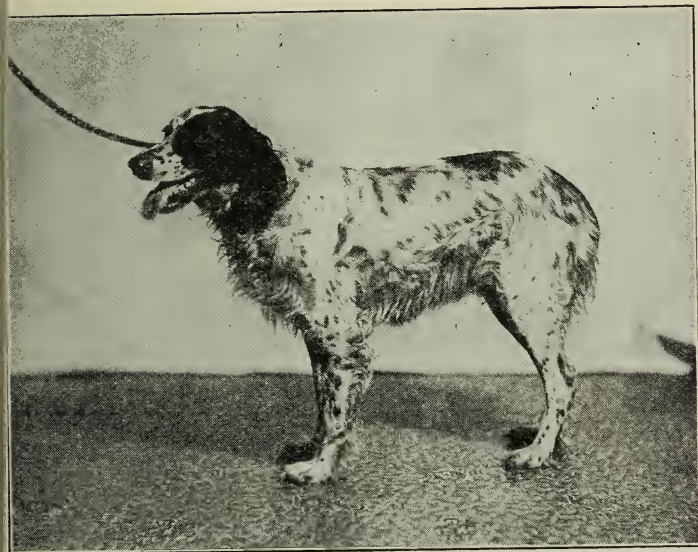




Tubercular cattle branded for slaughter reactors grow fewer as testing increases



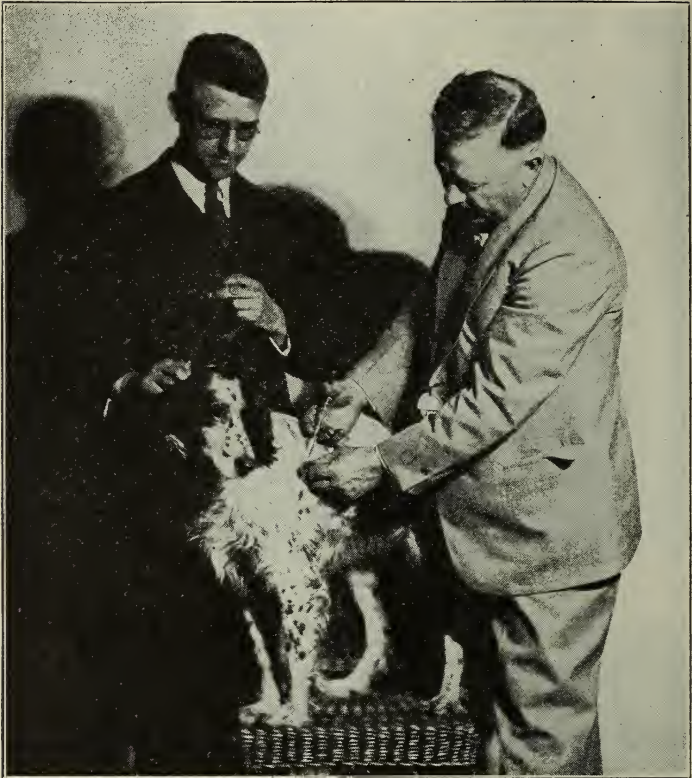
Computing indemnity promptly enables owners to get reimbursement vouchers without delay



Rabies control laws require all dogs in areas affected to be locked up or restrained

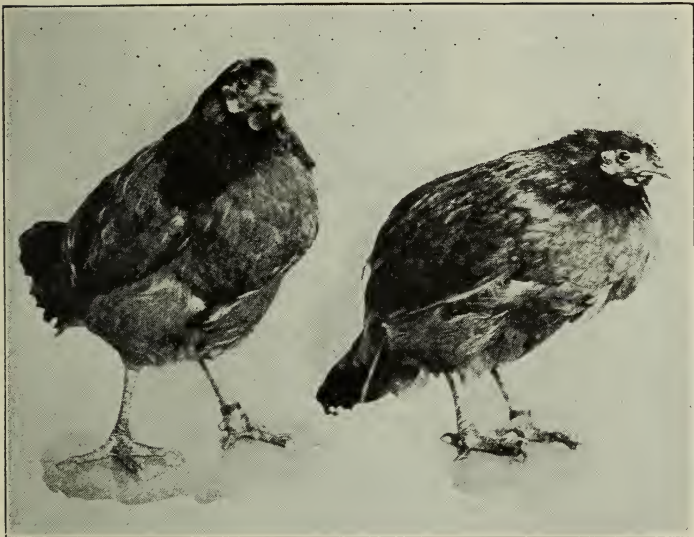


If allowed to run at large in rabies control areas, they must be muzzled, or vaccinated



If administered a prophylactic treatment and so tagged, they
may run at large

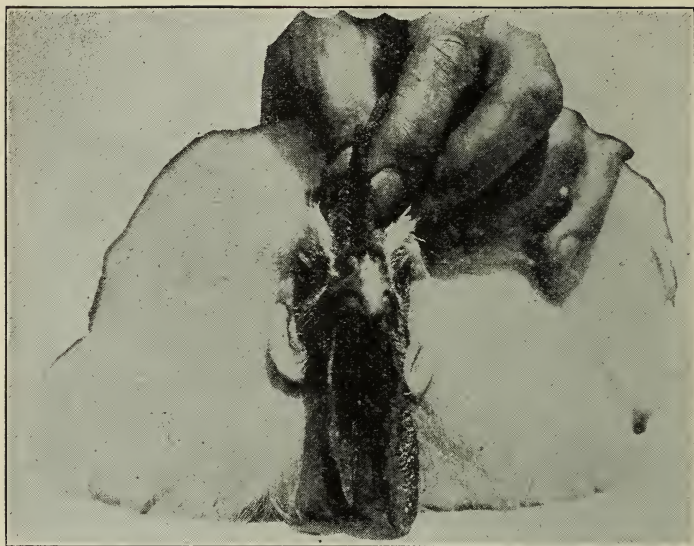
In the form of common livestock ailments, tuberculosis in the cattle herds of Illinois has caused one of the most comprehensive undertakings carried on within the State in recent years. When the task of freeing herds on the farms of Illinois, from this disease, was undertaken, it had become quite prevalent, particularly in the northern counties. This disease eradication measure was formerly conducted under Federal supervision. At the time the Illinois State Legislature assigned the duty of conducting this program to the State Department of Agriculture, only one county of the 102 in Illinois had ever attained



To control avian tuberculosis, the veterinary service administers tests



An intra-dermal injection of tuberculin is made in the wattle of suspected birds



A lesion forming in the comb reveals tuberculosis

accreditation as free from this disease, and its accreditation had lapsed. At that time, testing 30,000 cattle in one month was hailed as an achievement.

The accompanying illustration marks the progress of this program since the State has had it under supervision. It indicates that at this time about three-fourths of all the breeding and dairy cattle in this State are under supervision. On July 1, the number listed totaled 1,223,850. During the present summer season, tests performed each month have averaged upward of 100,000 head of cattle—more than three times the former record. From the progress now in evidence, the practical eradication of this livestock disease from Illinois within the next two years is considered as contingent only upon the continuation of the well directed efforts now put forth.

Among the less common ailments this Division guards against are such diseases as the foot and mouth disease, anthrax, rabies, hog cholera, and a formidable

array of other ills that have threatened serious losses to the farmers of the State. Through eternal vigilance, and prompt action in events that transpire almost daily to threaten the welfare of the public in the form of livestock diseases, Illinois enjoys comparative immunity from these threatening epidemics. Quarantines and embargoes and an alert body of able veterinarians, operating throughout the State, yet all in contact with one central office, on countless occasions have served to guard the State against outbreaks of disease. Without this service, doubtless some of the many cases would have developed into serious proportions. Livestock values are relatively higher as the result of the disease prevention service of the State, and conditions generally are better because of the control and remedial measures it administers.

DIVISION OF PLANT INDUSTRY

O. T. OLSEN, *Superintendent*

Through this branch of the State service, the State enjoys protection against insect pests and plant diseases. In that the effective method of prevention in any ill should begin at the source, this work deals largely with the seeds and plants before they have an opportunity to cause losses to the farmers through impurity and disease.

The nurseries of Illinois and other states provide the nucleus for the fruit production industry, and for other forms of productive and ornamental plants. This requires inspection of the nursery stock that is available for planting in the State of Illinois. Firms engaged in propagating trees in Illinois are subjected to inspection by State forces.

This service has increased continuously since 1921. That year, 306 nurseries were inspected. The annual inspection records grew gradually, until, in 1927, 623 nurseries were subjected to inspection. For the present season applications for inspection received up to July 1 total 725. Certificates issued by the inspection service



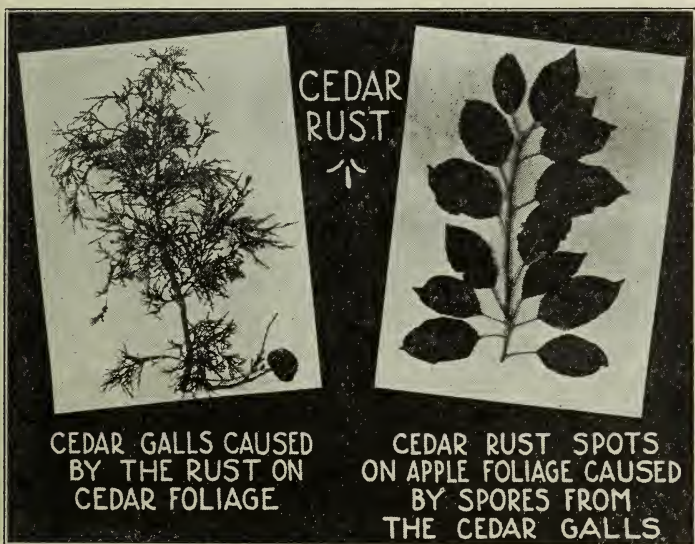
Plant inspectors detect inherent blights in orchard stock at nurseries and remove it



Shade trees, shrubs and ornamental plants are also subjected to inspection



Peonies have their own diseases. This plate compares healthy and diseased plants



Cedar rust, the bane of orchardists. Removal of affected cedar trees is a prevention measure

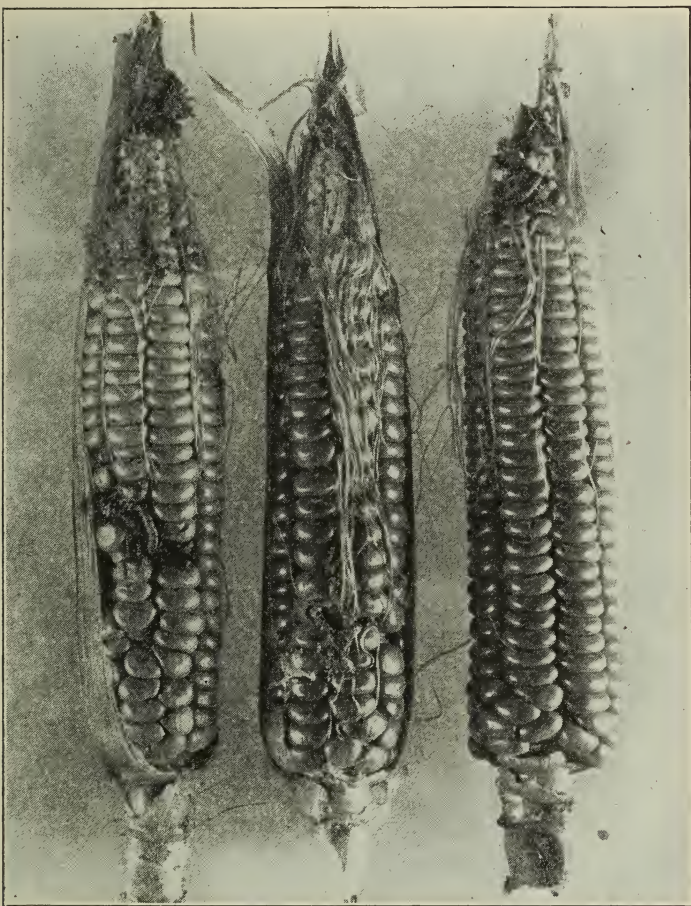


Illinois is guarding against the European cornborer, which causes this destruction

are of several classes. In number, they have practically doubled since 1921.

For the field crops of the State, the seed, such as the meadow grasses, must be free of noxious weeds and weeds of other plants if the harvest is to be up to expectations. To guard against impure or misrepresented seeds, this Division, through its inspection and analysis service, determines the proportion of undesirable elements in seed stocks sold in Illinois. This branch of the Division's operations has also expanded.

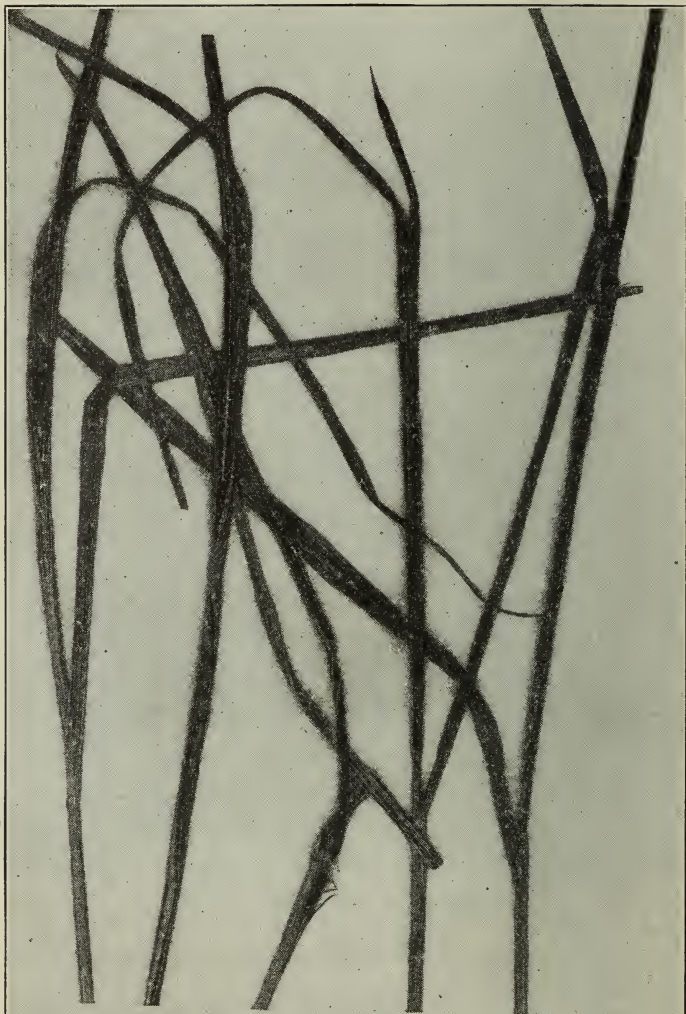
As an example of the increasing service of the seed laboratory, a comparison of the analysis performed during the year ending June 30, 1928, and 1927, shows a decided gain in Illinois-grown seed stocks marketed. In 1926-27, there were 3,440 samples analyzed and found salable. In the year ending June 30 last, the number reached 6,222. Seed brought in from other states decreased. Imported stocks inspected during the year just



A closeup of the worm at work

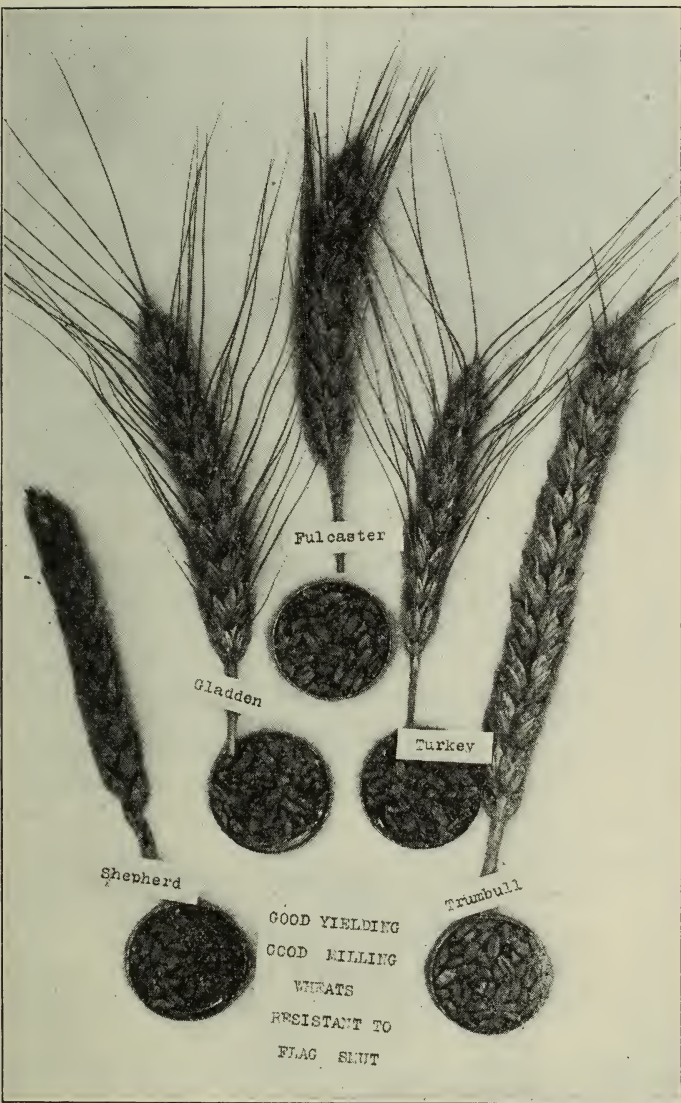
past total twenty-four. During the preceding year, 52 lots were subjected to the laboratory test.

Then, aside from common ills to guard against, there are the occasional emergencies that arise, such as the impending European cornborer invasion. Thus far, the service this Division has been called upon to perform in



FLAG SMUT OF WHEAT

Control measures: - Use only resistant varieties, rotate crops and disinfect seed.



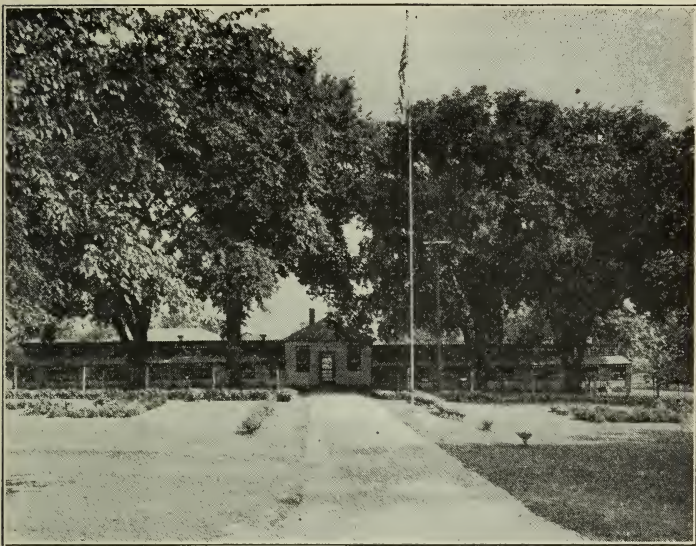
this connection has been primarily preparation and watchful waiting. Through well directed plans, the Division is in readiness to defend the cornbelt as thoroughly as is possible, against the gravest danger that has ever threatened the greatest corn production section of the world. In addition to preparatory efforts, the State, through this Division, guards its endangered eastern border. In the single instance of an advance invasion, danger of its spread was promptly removed by a thorough treatment of the threatened area.

Many blights, diseases and pests of sundry kinds beset the field and orchard crops of Illinois. This service tends to prevent serious inroads they all threaten to effect. Flagsmut and the common barberry, as elements endangering wheat production, are illustrations. The State is coping with these ills successfully. Much has been done to eradicate noxious weeds, such as the Canada thistle, under the supervision of this agency. The menace to life and livestock present where the poisonous white snakeroot grows and cattle graze, has been impressed as an effort in behalf of public safety through the efforts of this body. And, by way of a promotional enterprise, the Division carries on a propagation program that is gradually developing a watermelon, desirable in all characteristics, and with relative immunity from wilt. Generally, the Division is successfully serving Illinois in the capacity of a guardian of the welfare of the plant life of the State.

DIVISION OF POULTRY HUSBANDRY

A. D. SMITH, *Chief Poultryman*

"To make poultry raising a more profitable branch of farming, and thereby provide the public with an improved quality of poultry products, as well as to increase the farmers' income,"—that briefly sets forth the object the present State administration had in mind when plans were made for the development of the service this Division renders.



Poultry experimental farm at Quincy

The progress of the industry within the State in recent years reflects the success of this important undertaking. Poultry products are of improved quality, and a greater portion of farm income is now derived from feathered flocks than formerly. Just how these conditions have been brought about explains the nature of the work that men who represent the State in this capacity perform.

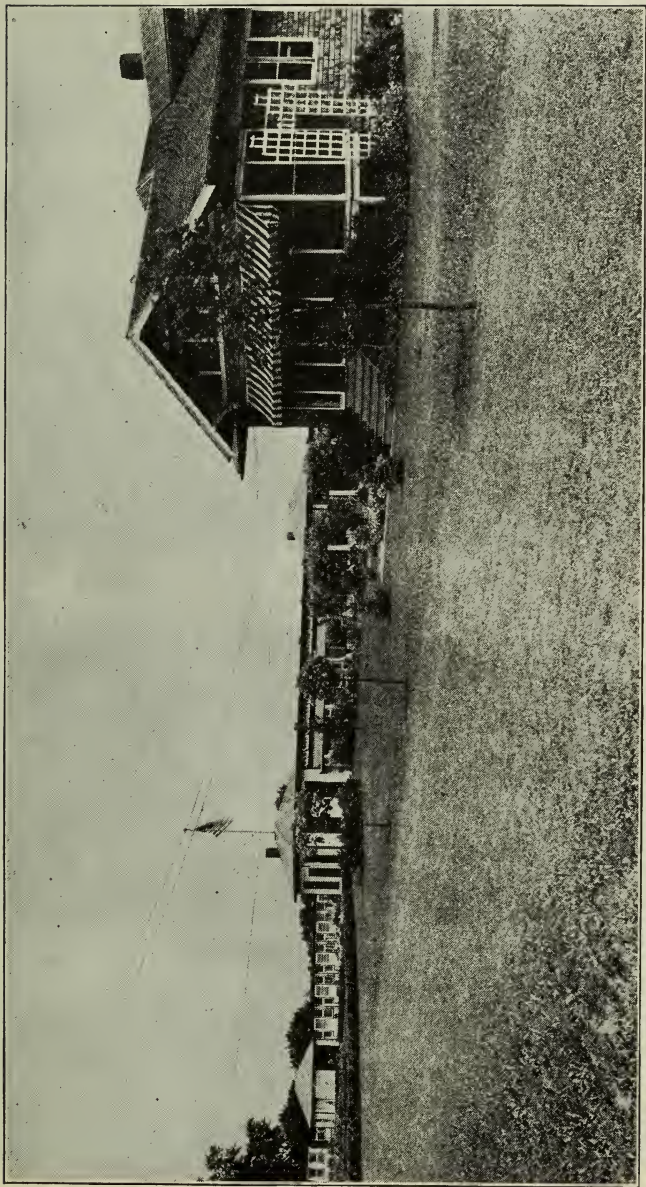
Poultry farming practices undergo improvement through the education of the ones engaging in it, either commercially or for domestic purposes. To provide poultry lore for all concerned, countless bulletins have been distributed throughout the State as a service of this promotional agency. Lecturers have toured every county, telling all who care to hear, how flocks can be improved. Motion pictures have been projected at public gatherings, and, in many ways, the public of the State of Illinois has been informed along practical lines, regard-

ing methods of procedure for the best results in poultry raising. Future farmers have received their share of this instruction, through the schools and junior poultry clubs. Nothing has been overlooked that might prove helpful to the industry.

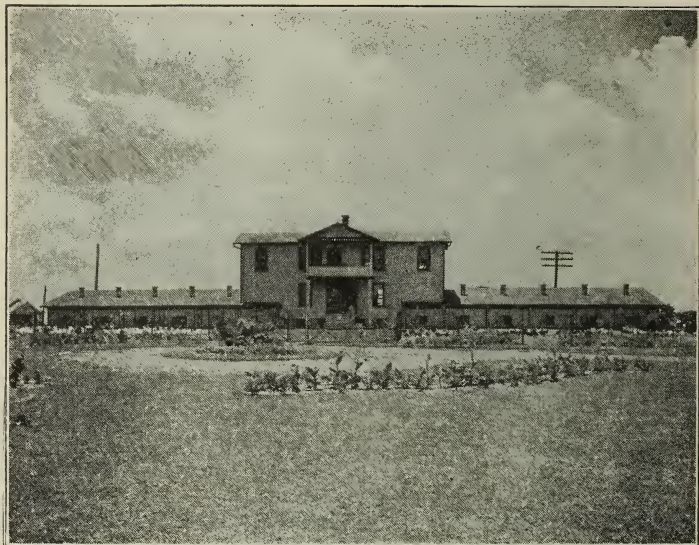
The Division has always recognized the fact that profits from a flock of laying hens will vary with their egg production. For this reason, three egg-laying contests are carried on. One is in northeastern Illinois at Kankakee, another in the western section, at Quincy, and a third, in Southern Illinois, at Murphysboro. At these experimental projects, hens from all sections of the Nation strive for egg-production honors. The records form a basis for the breeding plans of poultry keepers. Ideal conditions are maintained. The places are always open to the public. From the throngs that visit these three institutions, and the comprehensive reports issued from them monthly, the world learns what good laying stock, properly housed, carefully attended and scientifically fed, can produce. Some of the highest records ever made in any contest have gone on record in the Illinois experimental plants.

Within recent years, this Division has advanced another service that has exceeded in its scope and value any similar undertaking in any other state. That is the system of inspection and accreditation whereby commercial hatcheries produce baby chicks with certificates that gain marked recognition for this Illinois farm product in every section of the continent. Birds distributed as "State Standard Accredited," from Illinois, are recognized by the informed poultry people of America as true to type for the breed and variety they represent. They are known to have been sired by virile, healthy males, mated to hens that bear all the characteristics of high egg-production.

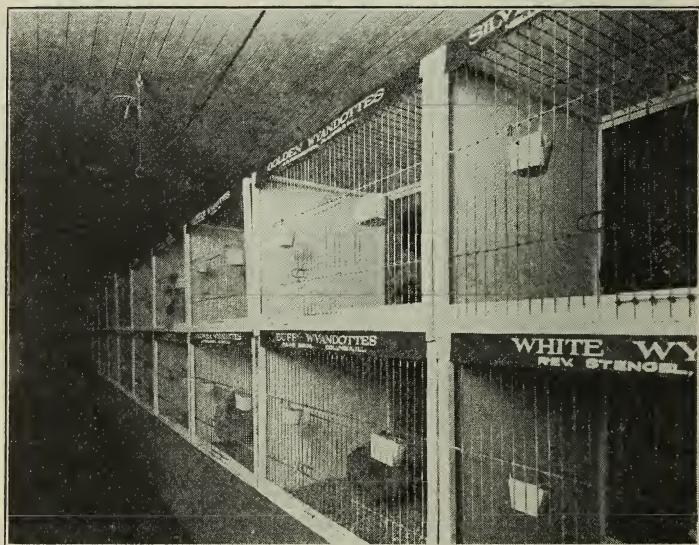
In addition, another mark of recognition given poultry that qualifies to receive it, is the accreditation as free from avian tuberculosis and bacillary white diarrhea—two common poultry ailments. This, as a specialized



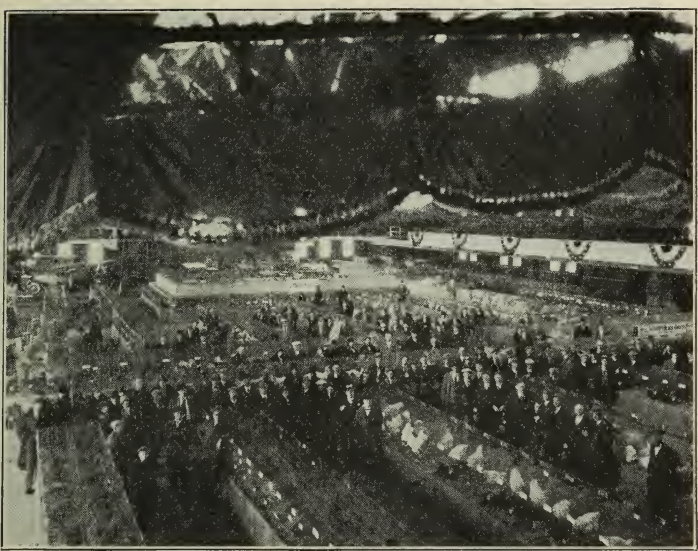
Poultry experimental farm at Kankakee



Poultry experimental farm at Murphysboro



Specimens of all breeds tour the State as exhibit on poultry promotional train



This division works with the State association in presenting exhibition. State show, 1928

veterinary problem, is a service carried on in the Division of Animal Industry, under the supervision of the chief veterinarian.

The Poultry Husbandry Division functions through allied organizations, such as the State Poultry Association, and aids the industry in conducting poultry exhibitions. By way of illustration of the success it has attained in this branch of its service, the Poultry show at the State Fair, in 1926 and 1927, exceeded in extent of entries and in value to the industry, any other poultry exposition ever held at any time or place.

In volume of production, Illinois is placed as second only to Iowa, when the last agricultural census was compiled. In quality of production, and in the efforts put forth by the State to promote improved production, no other section of America can claim superiority to Illinois. Poultry authorities freely predict that, within a few years



State standard accredited chicks in the world's second largest hatchery at Peoria

more, a continuation of the present constructive program will gain for Illinois the national recognition it so well deserves as the foremost poultry section of the world.

DIVISION OF DAIRY HUSBANDRY

J. S. MILES, *Superintendent*

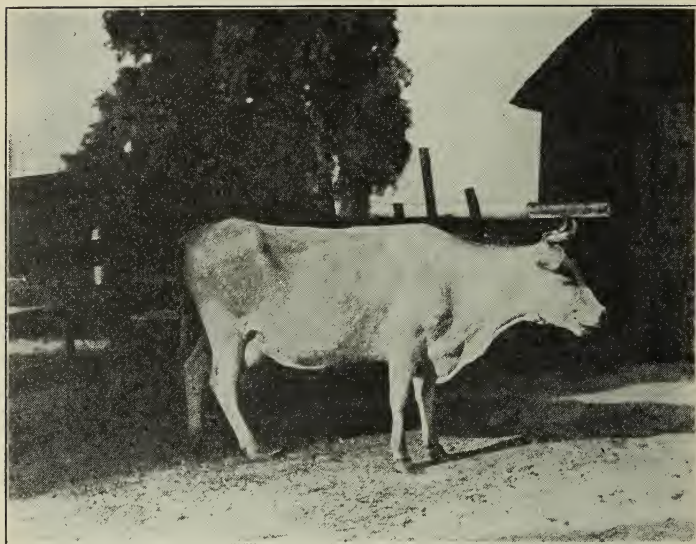
When the yield, per unit of production cost, is doubled, in any branch of husbandry, within a period of eight years, in any given section of the country, the efforts that have brought about that marked increase merit recognition. Such has been the achievement in Illinois, since 1920, for the dairy farming business. Dairymen in touch with this advancement, attribute it, in a great measure, to efforts that the State of Illinois has made through the men who have engaged in the service of the Division of Dairy Husbandry.

An annual income in the form of dairy products from the farms of Illinois that totaled \$54,000,000 a few years ago, was deemed remarkable. The income from this source last year exceeded \$101,000,000, averaging around \$1,000,000 annual income to the county. And, *there are fewer milk cows now than when production was but half the present yield.*

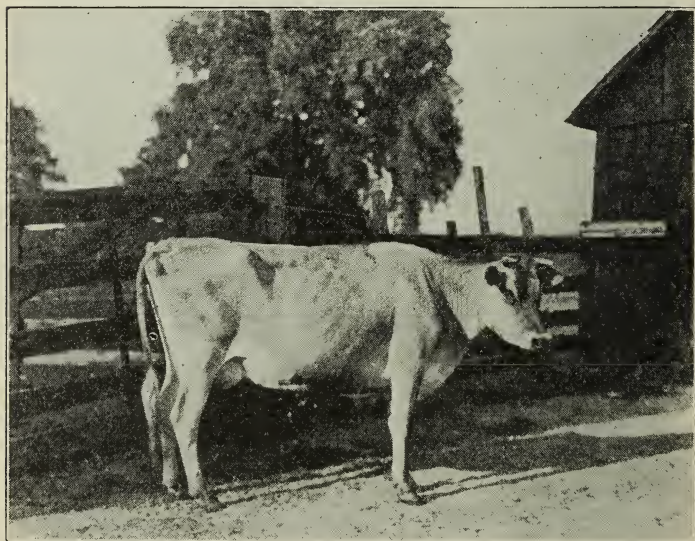
Improved breeding, care and feeding, and a more thorough understanding of the economic problems of the industry have brought about this added revenue. Without it, in these years that go on record as a period of so-called agricultural depression, conditions on the farms of Illinois would have been far less satisfactory than they are.

Men engaged in this service have unified the efforts of various other agencies that also serve in this capacity. As a leader, it has made the efforts of the others more successful, and thereby is entitled to much recognition for the progress that all, collectively, have brought about.

The service this Division undertakes is purely educational and promotional. It has drawn to it, from many



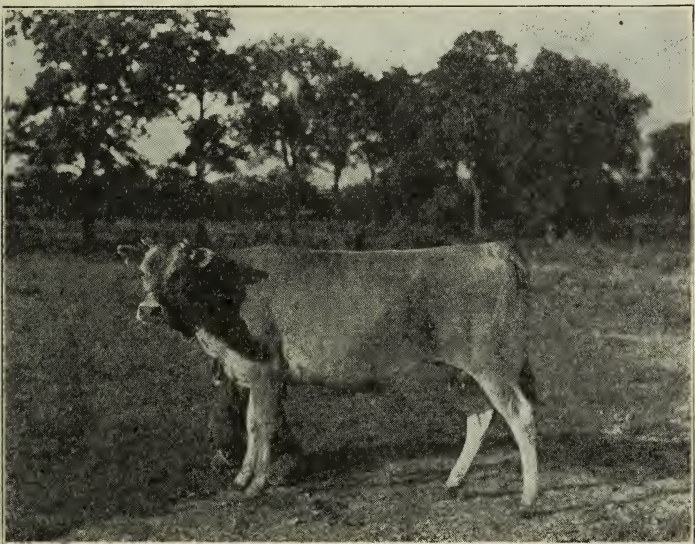
Results of selective breeding: This grade cow's record, 209 lbs. fat in 30 days



Progeny of purebred sire, out of foregoing dam, produced 321 lbs. fat in 30 days



The third generation shows an increase to 423 lbs.—doubling production per unit



The fourth generation shows a likely heifer—almost a purebred

sources other than the public funds, for judicious distribution, the means whereby the industry has been placed upon a more profitable basis. It has selected and distributed dairy animals of improved breeding, that outside agencies, due to prosper by increased yields of dairy products, have provided. It has helped to build a better market for all kinds of dairy products, based upon purity and quality production.

Helpful bulletins and instructive lectures, made more interesting and more comprehensive by filmed stories that tell of better breeding methods, disease prevention and control, and other problems the dairy farmer faces—all these form a portion of this service.

Through encouraging competitive exhibition of dairy stock and dairy products, and by bringing into Illinois the finest specimens in America, this service has afforded inspiration to progressive dairy people. It has demonstrated just what can be accomplished when the lessons science teaches are carefully followed on the farms of Illinois, and, as the result, more farmers in all sections of the State today are realizing more adequate returns upon the investments they make in effort and in substance in the dairy branch of farming than was the case when this service began.

Illinois, considering its area and general conditions, ranks high as a dairy production state. In competition with the world, in expositions and in production tests, farmers of Illinois have well upheld the honor of the State.

The youngsters too, in junior clubs and agricultural classes, when pitted against the best informed in other states, have demonstrated thoroughly the value of the teaching they receive in the fundamentals of dairy farming; and in this, too, the Division of Dairy Husbandry plays an important part, building for the future of the industry as well as for its immediate success.

DIVISION OF STANDARDIZATION AND MARKETS

G. V. DAY, *Acting Superintendent*

To produce a crop successfully is but a portion of the farmer's problem. It must be marketed before he can derive an income from it. In this age of standardization, uniformity and official designation of the variety and quality is particularly essential for successful sales of perishable commodities. On this basis, the Division of Standardization and Markets serves the fruit and vegetable production branches of the farming business.

Skilled inspectors, versed and drilled in the various commodities that orchards and truck gardens of this State produce, pass upon the quality of shipments at the point of origin. In the harvest season, forces engaged in this special service can be found throughout the sections from which fruits and vegetables are shipped in car load lots.

Certificates of grade and quality, issued by these specialists, are based upon the standards the Department of Agriculture promulgates as official. The standards are unified throughout the United States through the Federal marketing bureau, and are prima facie evidence, in any court of justice in the Nation, of the statements they set forth.

This service formerly exacted twice the fee that is assessed the growers now. In spite of this reduction, the revenue that Illinois derives is greater now than then. This is due to the vast increase in the service rendered. No greater expenditure of State appropriations has been essential to this expansion. Able administration of this activity has enabled it to accomplish more good per dollar of its cost to the public. The accompanying table tells how growers, as associations and as individuals, are demanding more of this inspection service.

In addition to this service, men engaged throughout the year, when not assigned to shipping-point inspection,



Proper orchard methods encourage bumper yields of splendid fruit



Mechanical cleaner removes spray residue and soil, and gives the fruit attractive luster

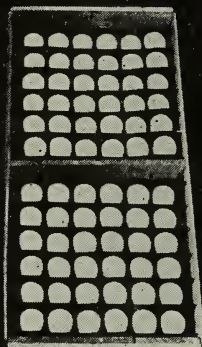
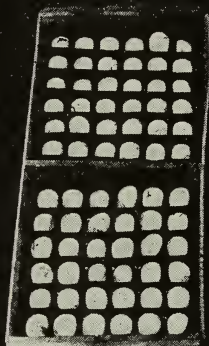


Inspection, in the packing plant, for the certification of grade and quality



Final inspection before the car is sealed assures the trade the contents is as certified

WHICH KIND DO YOU MARKET?



DIRTY
IRREGULAR or

CLEAN
UNIFORM

Grading demonstrations and egg shows tend to improve quality of Illinois eggs

carry on an intense promotional program. Growers are taught the value of the improved methods science has evolved, and are urged to adopt the plans productive of the best results. Consequently, more growers of fruits and vegetables now, than formerly, are selecting, grading, packing and shipping their products in conformity with

the demands of an exacting market. As a result, more growers are deriving more satisfactory returns.

In addition to the perishable fruits and vegetables, another farm commodity, also highly perishable—the egg—receives attention at the hands of this Division. Grading demonstrations, and competitive exhibitions of selected eggs, conducted and encouraged through this branch of the service, tend to instruct the poultry raisers on the most successful methods of marketing this staple product.

As the fruit industry of Illinois expands, the need of this marketing service grows. As growers learn more of its merits, the service becomes more in demand. This has been the record during the past few years, and as sure as Illinois continues fruit and vegetable production, there will remain a strong demand for this constructive service.

DIVISION OF COOPERATIVE CROP REPORTS

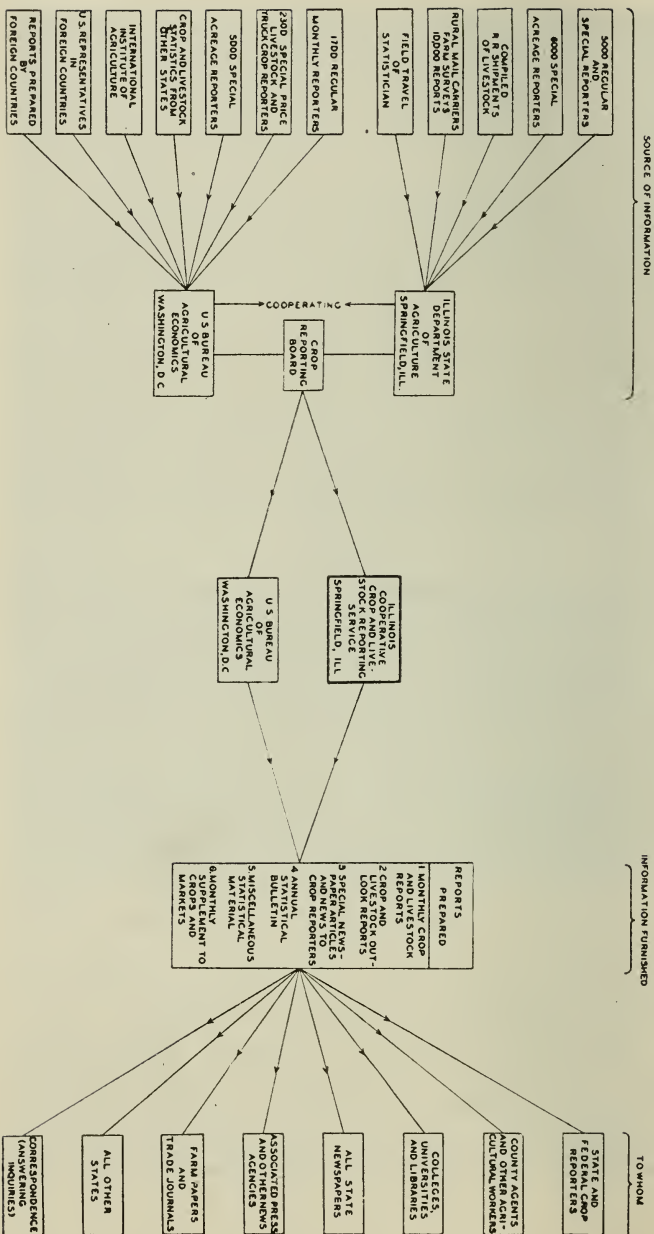
A. J. SURRETT, *Agricultural Statistician*

A public that is well informed concerning the recorded production and movement of farm products and indications of future yields in crops and livestock, can produce and market its commodities more wisely. The dealers and consumers, too, derive a benefit from authentic information.

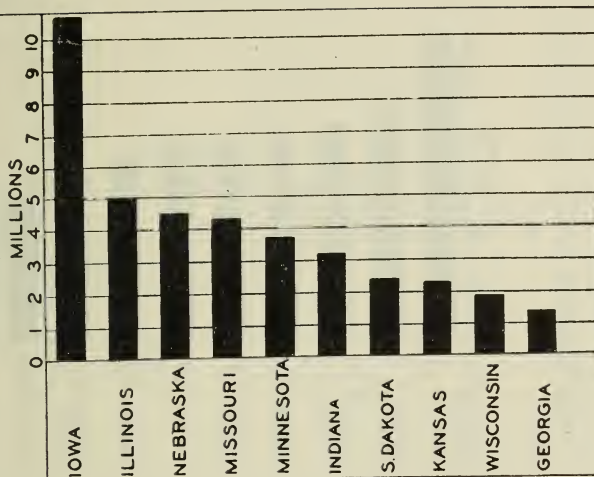
Such a service is provided in the State of Illinois as the results of cooperation, developed during the administration of the present chief Executive, between the United States Department of Agriculture and the Department of Agriculture of the State of Illinois.

This service functions to minimize erratic fluctuations on the markets. It takes into account the factors that affect production. It conducts intensive surveys of conditions as they exist at a given period, and on information carefully assembled, bases estimates of future yields.

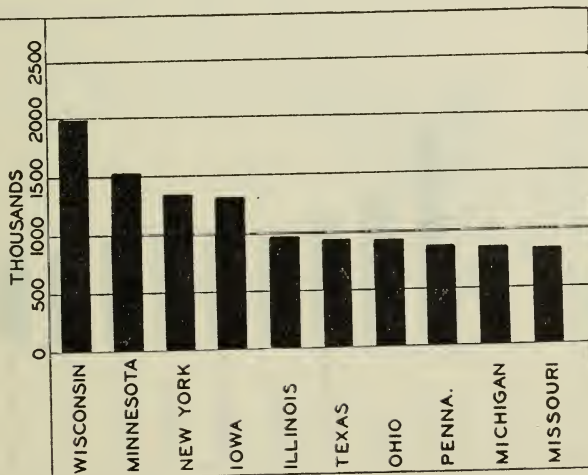
ORGANIZATION OF THE ILLINOIS CROP AND LIVESTOCK REPORTING SERVICE

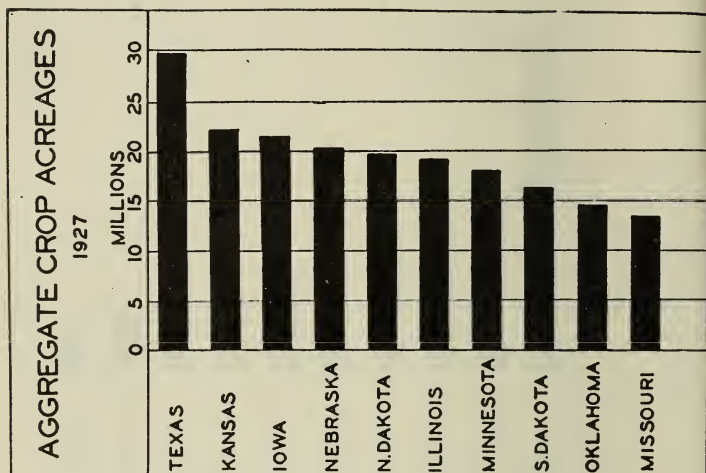
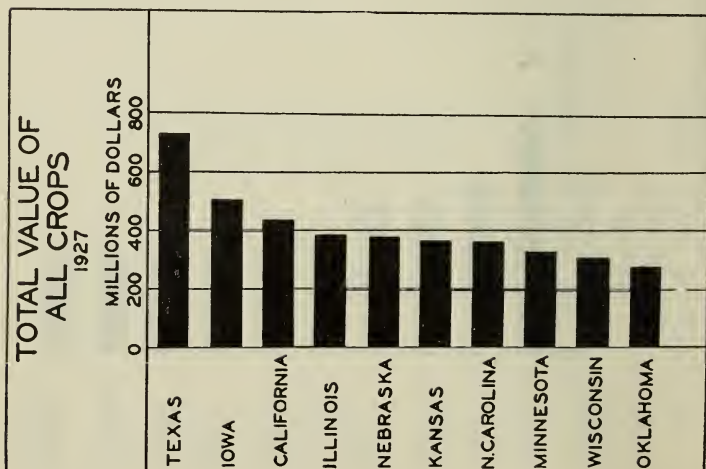


NUMBER OF HOGS
ON FARMS
JAN. 1, 1928

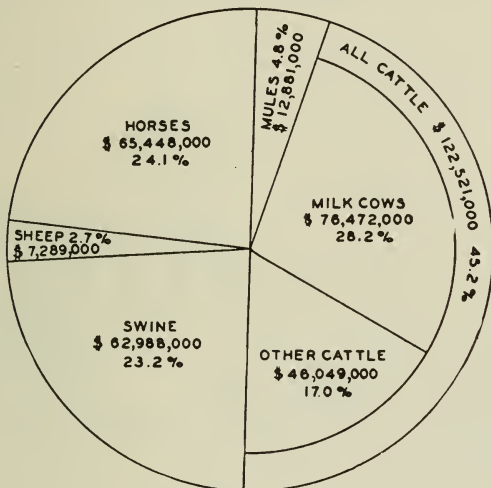


NUMBER OF MILK COWS
ON FARMS
JAN. 1, 1928

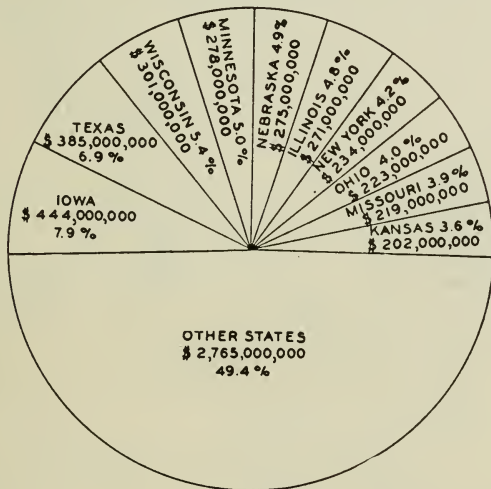




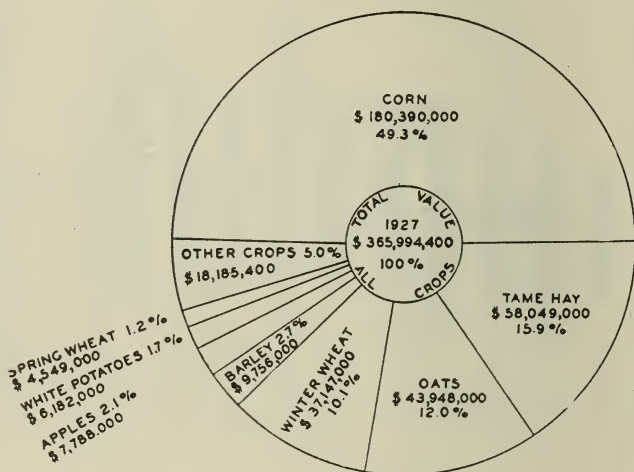
GROSS FARM VALUE OF ILLINOIS LIVESTOCK JANUARY 1, 1928



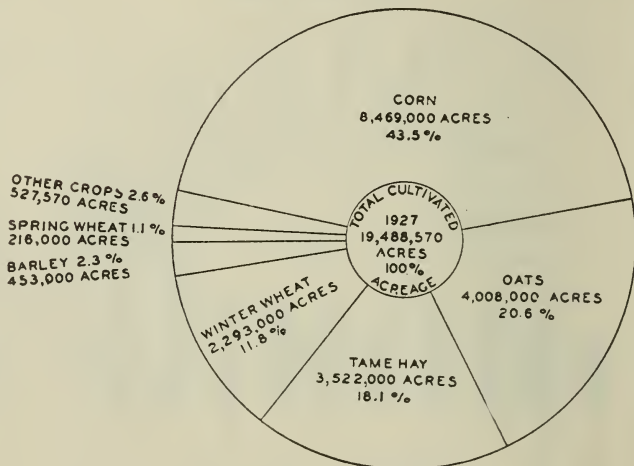
AGGREGATE VALUE OF LIVESTOCK CATTLE, HOGS, SHEEP, HORSES AND MULES JANUARY 1, 1928

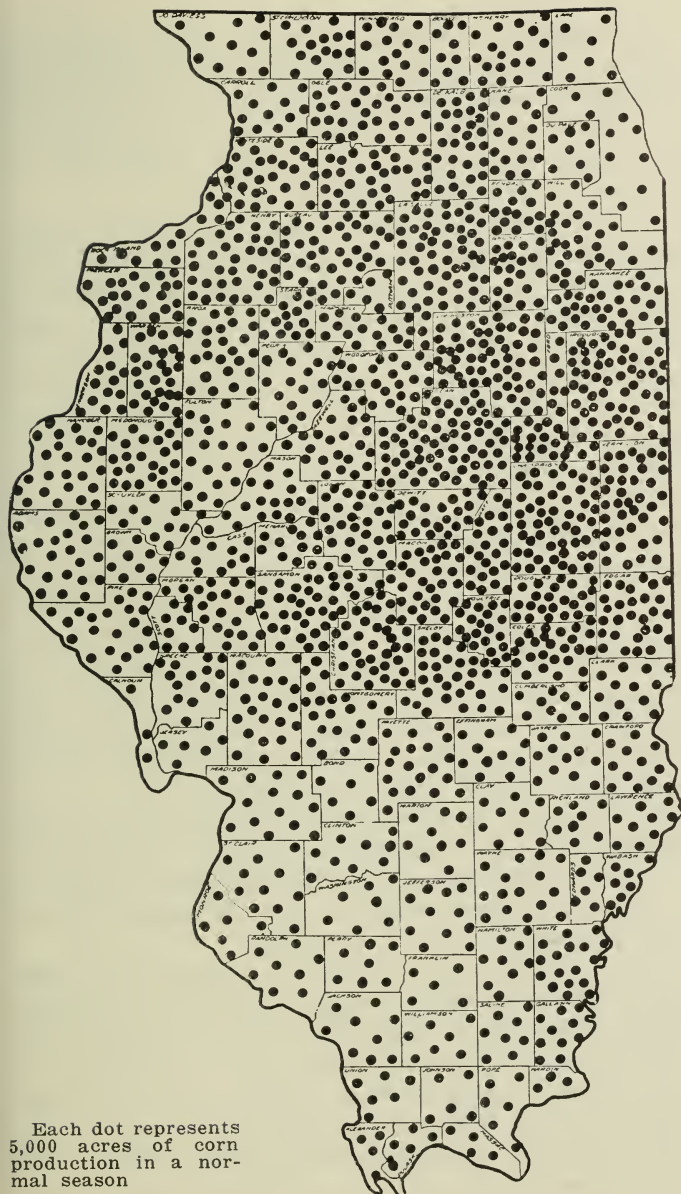


GROSS FARM VALUE OF ILLINOIS CROPS DECEMBER, 1927



UTILIZATION OF CULTIVATED ACREAGE ILLINOIS - 1927





Throughout the State, local crop and livestock reporters contribute information. The data thus assembled is carefully corroborated and compiled. The information that is then available is released in such a manner that the farmer may receive it just as soon as the concerns that deal in farm commodities.

This joint State and Federal service is growing. Crops that are increasing in importance are added to the list considered. More frequent information is demanded and procured for an interested public. Unusual conditions, such as unseasonable weather, floods, and other departures from the normal situation that frequently occur, call for emergency treatment. All this has helped to bring about an increase in the volume of the service this Division renders.

The circulation of the reports and estimates issued is continually growing. This is attributed to the fact that farmers throughout Illinois are basing greater confidence in the information that this service provides. They find that a study of conditions affecting markets they supply is helpful. If indications are that pork, for instance, will be in great demand six months hence, they arrange their plans accordingly. If they find the trend of production indicates a surplus, they adjust planting, breeding or feeding plans accordingly.

Aside from the growing list of reports issued direct to an increasing list of clients, newspapers carry information that this service prepares. This reaches readers in all sections simultaneously, giving all the benefits the information offers.

The Division of Cooperative Federal and State service illustrates what two great agencies can accomplish when they work in harmony. Either would be hindered without assistance of the other. The information that is gleaned in Illinois alone would be of far less value without taking into account related information from the other production sections and the market centers of the Nation—and that, naturally, is a function of the Federal

service. The two Departments, united for this purpose, have worked harmoniously and successfully, and the farming interests of the State of Illinois have profited materially through this cooperation.

DIVISION OF APIARY INSPECTION

A. L. KILDOW, *Chief Inspector*

Even the busy little honey bee is subject to infection.

A bee disease known as foulbrood, a few years ago, threatened the extermination of the apiary industry. The business of keeping bees was then only a fraction of the industry it is today, but Illinois, through its State government, recognized its value and importance.

As a commercial proposition, the production of honey on the farms of Illinois is growing in importance. It is the only means of livelihood of many farmers. Others, keeping bees for the home supply of that most wholesome sweet, would be deprived of its great benefits unless the disease that threatened the industry were overcome.

As conditions in this advancing agricultural section show the march of progress, the honey bees, as Nature's own provision for the pollinization of the flowering plants, increase in importance. The wild bees of the forests, and the bumble bees of the cut-over, stumpy bottom fields, are rapidly disappearing from Illinois. The duties they performed now rests upon the pollen-laden shoulders of the honey bee. If Illinois continues to grow its fruits and vegetables and clover crops successfully, it must defend its willing messengers—the honey bees.

The Division of apiary inspection is performing this service. Within the past two years, inspectors have eradicated almost every colony that investigation indicated was too seriously infected for successful treatment. The inspections carried on have increased until now around 80,000 colonies are visited during the spring and summer season. In place of 50 per cent disease, as formerly existed, the percentage is reduced to almost nil in many sections of the State. A few plague spots remain,



Foulbrood, reduced to a minimum in Illinois, by thorough inspection service



Experimental and demonstration apiary, maintained at Springfield

and inspection, recently reduced by virtue of the fact that this task has been practically completed, is largely confined to emergency service and to a cleanup program in the sections where the blight is still in evidence.

This service of the State, like other branches that promote agriculture, tends to educate rather than to prosecute to bring about desired results. In very few instances has it ever been necessary to resort to court proceedings to effect eradication of colonies that threatened the welfare of others by contaminating adjacent bee-yards. Cooperation and a friendly understanding exist between the service and the industry. This is brought about, to a very great extent, through cooperation with the local and State associations of beekeepers.

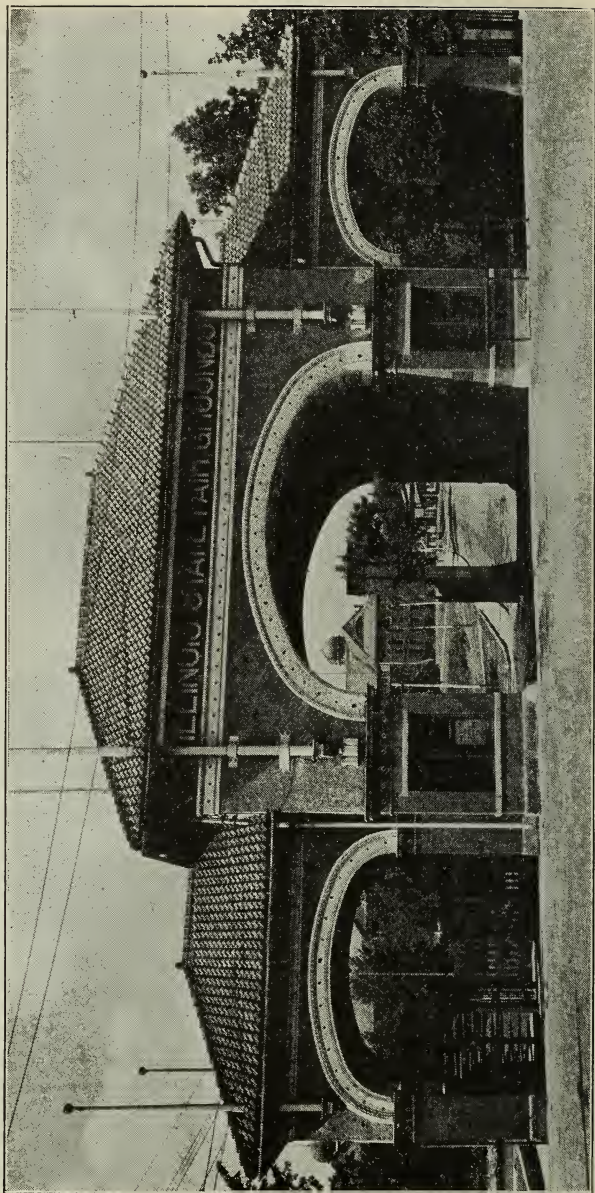
In addition to the inspection for and treatment and removal of disease, the State goes further for protection of this industry. In the last session of the State Legislature, a measure was enacted whereby honey bees, to enter Illinois, or to be transported from one county to another within the confines of the State, must be subjected to inspection. The same requirements apply to apiary equipment. Compliance with this regulatory measure, usually voluntary, tends to protect the hives of Illinois from reinfection, and thus prevents some careless shipper from undoing the good work the inspection service has accomplished in a disease-free community.

ILLINOIS STATE FAIR

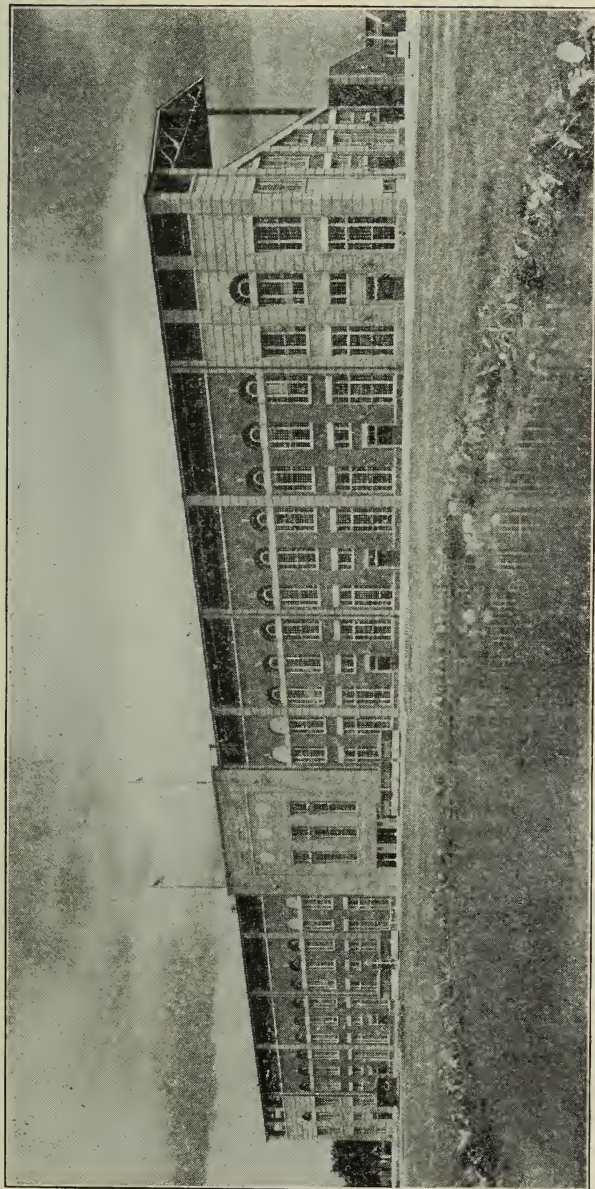
W. W. LINDLEY, *General Manager*

Within the past few years, the Illinois State Fair has gained wide recognition as "The Nation's Greatest Agricultural Exposition." Founded for the purpose of promoting the welfare of the farming population of the State, it is now, in its seventy-fifth year, adhering to this fundamental principle.

The various departments of this annual institution that tend to improve the quality of the products of the



Gateway to the Nation's Greatest Agricultural Exposition, The Illinois State Fair, 1853-1928



North America's finest amphitheatre, built in 1927, on the Illinois State Fairgrounds

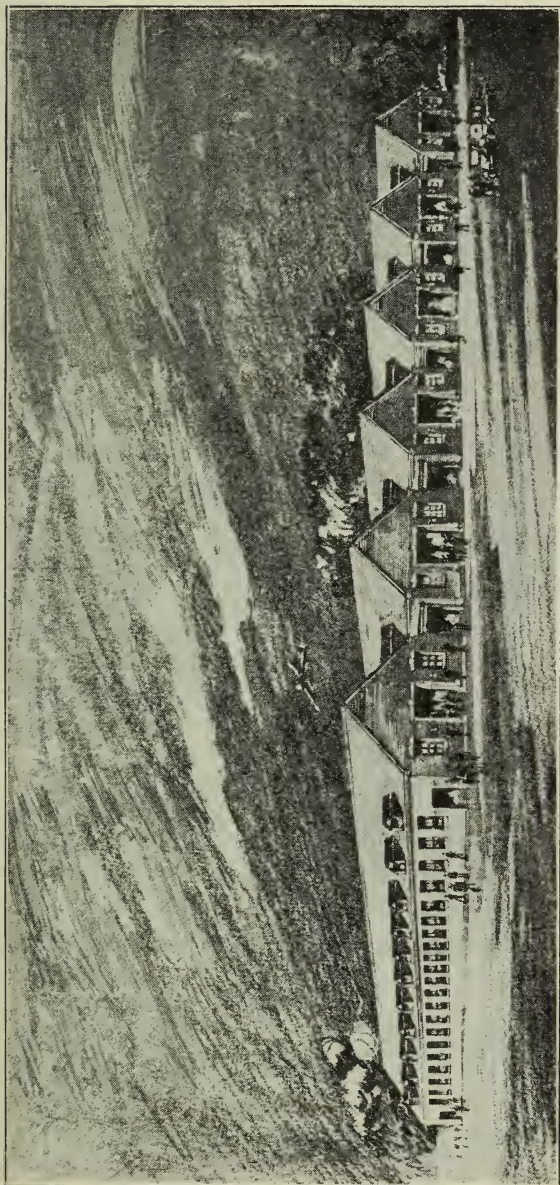


Show pavilion, just completed, for the dairy cattle exposition,
Illinois State Fair

farms of Illinois are the ones receiving the attention of the public. In the extent and in the quality of displays competing for recognition in the various classes of livestock, poultry and farm products, the Illinois State Fair is the premier exposition of the Nation.

Educational opportunities, developed to a higher standard, and made available to a greater number of people during recent years, have also served to augment the value of this great institution. In the nature of its entertainment features, under the present method of supervision, it has established standards that are worthy of emulation. It is, in fact, the most comprehensive institution of its kind in the United States.

In one particular alone, fairs located near great metropolitan centers surpass the Illinois State Fair, and that is in attendance. Yet, in attendance by the families from the farms, it is perhaps without an equal. As such, it serves its purpose in a manner that is eminently satisfactory.



New home for dairy cattle, with space for 700 more exhibits, ready for the Fair of 1928

No feature in the progress of this institution, within recent years, exceeds in value and importance the great construction program that is underway at the State fairgrounds. Increasing attendance, some two years ago, caused objectionable congestion. To remedy this, and to enable more to get the benefit of the attractions offered, a comprehensive program of expansion and improvement was outlined by the State officials. Last year, the program was well underway. Increased acreage was taken into the inclosure. An entirely new race track was constructed. A structure, combining a magnificent grandstand, a spacious exhibition pavilion and commodious administrative headquarters, was erected.

This year the program continues. Added acreage has undergone improvement, and among the other advantages, this affords abundant free parking space, within the grounds, for all motorists attending.

The outstanding portion of this year's construction quota is the erection of six new dairy cattle stables and a cattle show pavilion. This represents the recognition by the present State officials of the growing industry of Illinois. This improvement has become essential to the welfare of the cattle exposition, as, within the past few years, increasing entries made the formerly abundant stable room entirely inadequate.

At the time this is prepared for publication, the Illinois State Fair of 1928 is in course of preparation, and from all indications, it will surpass all former records in its value as an institution for the public good.

EDUCATIONAL EXHIBITS

O. K. BALDWIN, *Manager*

At the Illinois State Fair and at many other county and district agricultural fairs throughout Illinois during the past few years, countless citizens of Illinois have enjoyed a feature known as Educational Exhibits. Funds have been set aside for the presentation of these features

by the recent sessions of the State Legislature, as a service administered by the State Department of Agriculture. The exhibits represent various departments of State government.

The exhibit idea had its origin early in the first administration of Governor Len Small. It has grown into a prominent, helpful feature. Five units tour the State throughout the summer and fall, visiting as many fairs as possible. Schedules have been changed from year to year so that practically every agricultural exposition held in Illinois participates in this, at least during alternate seasons.

The exhibits touring Illinois this season are typical of the ones that have gone out in former years, except that they reveal improvement.

Displays, in the form of mounted specimens, electrically illuminated transparent pictures, motion picture films and lectures all are used to convey to the public the messages these exhibits offer.

The Department of Public Welfare, by an array of exhibits, shows the progress in the care the wards of Illinois receive. The craftsmanship of patients is displayed.

The Department of Public Works and Buildings displays views and illustrations showing progress of the road construction program, and points of scenic splendor at the Illinois State parks.

The Department of Public Health sends physicians and nurses who give physical examinations that have warned many of the danger of disease.

The Department of Purchases and Construction shows what the State is doing in the construction of State buildings and in the Waterways Division.

The Department of Agriculture, with films and transparent pictures, teaches farm improvement methods,

and shows progress in the nine Divisions through which it functions.

The exhibits serve in many ways to improve conditions in the State of Illinois. They warn against the sundry dangers that beset the physical well-being of the public, and against the ills besetting agriculture. They give the public information to which this administration considers all entitled, for the disposition of the public funds concerns the citizenship of Illinois. This method of communication tells how public servants are performing duties that the laws assign them.

In addition to their presentation at the fairs throughout the State, the educational exhibits and the films that form a part of them are available for other public gatherings. Farmers' institutes, Farm Bureau meetings, conventions and other public gatherings engage these features. Bulletins bearing upon a wide range of subjects, prepared as an activity under the head of Educational Exhibits, and distributed by the staff of trained attendants, also serve to give helpful information State-wide distribution. By way of an illustration, the booklet wherein this appears, is a portion of this service during the present season. Copies are distributed at the several fairs exhibits visit, and the cost of distribution is thereby reduced to a minimum.

The foregoing sections touch but briefly on some representative activities conducted through the various Divisions of the Illinois Department of Agriculture. There are many others of equal, perhaps greater, importance. Detailed information, however, would prove burdensome, and they are therefore omitted from this report.

In addition to the many duties assigned to the separate Divisions, there are many that the Department is as-

signed by legislation. For example, Illinois does more by way of the financial and moral support and supervision of her county and other agricultural fairs than any of the other 47 states. Through increased appropriations, utilizing only funds collected from the race tracks of Illinois, the fairs are reimbursed for premiums paid in agricultural and related classes. This represents the distribution of more than half a million dollars during this biennium, through the general office of the Department of Agriculture. Inspection and supervision of the conduct of the participating fairs is required that they may qualify for this support. This, too, is a duty of the Department.

Seeking information on various topics that are vital to the welfare of the State, the Department has in progress, a number of important experimental projects. Information thus obtained will be of inestimable economic value.

One is an attempt to prove or to disprove the theory that tuberculosis can be prevented in livestock by a vaccine treatment. This, alone, if the evidence supports the contention that immunization is possible, will be of untold value to the State. In addition, the tests now under way will have an important bearing upon the long-sought plan whereby the human race may become immune from that dread disease—the great, white plague.

The State's relation to the county Farm Bureaus is conducted through this Department. The licensing of live market poultry dealers, as a means of curbing thefts, has been assigned to this branch of State government. Cooperative marketing organizations are also licensed through this service. In almost countless ways, the service this Department renders is met in the daily transactions of the people of the State.

Law, and custom, which makes law, also have ordained that the Director of this Department of State gov-

ernment, shall serve in various capacities related to the agricultural industry of the State. Official positions vested with the Director, and demanding his attention—and without compensation, briefly mentioned, follow:

Arbiter of the running race tracks of the State,
Agricultural Representative, Illinois Valley Flood
Control Commission,
Secretary, Illinois Association of Agricultural Fairs,
Secretary, Illinois State Dairymen's Association,
Member State Board of Vocational Education,

Illinois Representative in the National Association
of Commissioners, Secretaries and Directors of Agriculture,
and others.

The Department of Labor

GEORGE B. ARNOLD, *Director*

THE DEPARTMENT of Labor has been under the direction of George B. Arnold since February 1, 1921, and since February, 1928, James R. Cooper has held the position of Assistant Director. The organization of the Department's five main Divisions is shown in the accompanying chart. The Division of Free Employment Offices maintains and supervises free employment offices throughout the State, enforcing the Free Employment Agency Act. The Division of Inspection of Private Employment Agencies enforces the Private Employment Agency Act of 1909 through inspection, which serves as a basis for recommendation for the issuance and revocation of licenses. The Division of Factory Inspection is intended for the regulation of industry and labor through the enforcement of the various labor and factory laws. The Industrial Commission has for its purpose the administration of the Workmen's Compensation Act. It also is charged with the administration of the Arbitration Act, which provides for the adjustment of industrial disputes through mediators and conciliators. The General Advisory Board for the Illinois Free Employment Offices was developed under the Civil Administrative Code to maintain contact between the employment offices and the localities in which they are located. The Bureau of Labor Statistics under the Illinois Industrial Commission gathers and compiles all data pertaining to the Department of Labor and also under this Division the Labor Bulletin, the official organ of the Department, is edited. Sidney W. Wilcox is Editor in Chief, also head of the Bureau of Labor Statistics.



Insurance Department, Illinois Industrial Commission,
Department of Labor



Public reception room, Illinois Industrial Commission,
Department of Labor

DIVISION OF THE FREE EMPLOYMENT OFFICES

CHARLES M. CRAYTON, *State Superintendent*

Of the various divisions of the Illinois Department of Labor, it is doubtful whether any has a more direct and helpful relationship to the wage earner than the Free Employment Service. Its task of providing jobs to thousands of workers who have been cast out of employment because of the introduction of machinery or a decline in business is one of first rate importance to the citizens of Illinois.

The extent to which this service has been performed is indicated by a record of placements from 1920 to the present time during which a total of 1,220,051 workers have been given jobs in the eighteen offices and branch offices situated in thirteen industrial centers of the State.

The record for the fiscal years is as follows:

	Male	Female	Total
July, 1920—June, 1921.....	99,348	42,279	141,627
July, 1921—June, 1922.....	81,083	42,452	123,535
July, 1922—June, 1923.....	143,957	55,500	199,457
July, 1923—June, 1924.....	98,761	57,037	155,798
July, 1924—June, 1925.....	81,115	52,534	133,649
July, 1925—June, 1926.....	115,101	55,696	170,797
July, 1926—June, 1927.....	107,114	57,957	165,071
July, 1927—June, 1928.....	77,088	53,029	130,117
Total	803,567	416,484	1,220,051

Up to the present time the majority of the openings for men have been in the common labor branches, and most of the calls for women have come from hotels, restaurants and people needing domestic servants. The practice among trade unions of placing their members has caused the free employment office to put less emphasis on the placing of skilled workers and to give more time to those whose skill is no longer needed because of economic readjustments, or to those who have never followed any particular line of work. Because of a number



Personnel of the Illinois Industrial Commission, Department of Labor

of causes, among which is the greater competition of private agencies, the free employment service has played only a minor role in the placing of clerical workers.

The greatest number of placements has been made by the Chicago office which has five branches situated in the various industrial sections of the city. An office for unskilled labor is maintained at 105 South Jefferson Street, and another, designed particularly for the benefit of colored workers, is to be found at 419 E. 35th Street. A large number of foreign-speaking men and women are placed by the Logan Square office. The Stockyard Branch is located at 4713 South Halsted Street. Separate divisions for the placing of all leading kinds of help are to be found in the central office at 116 North Dearborn Street.

Other offices to be found in the State are in Danville, Decatur, Bloomington and Aurora where the demand

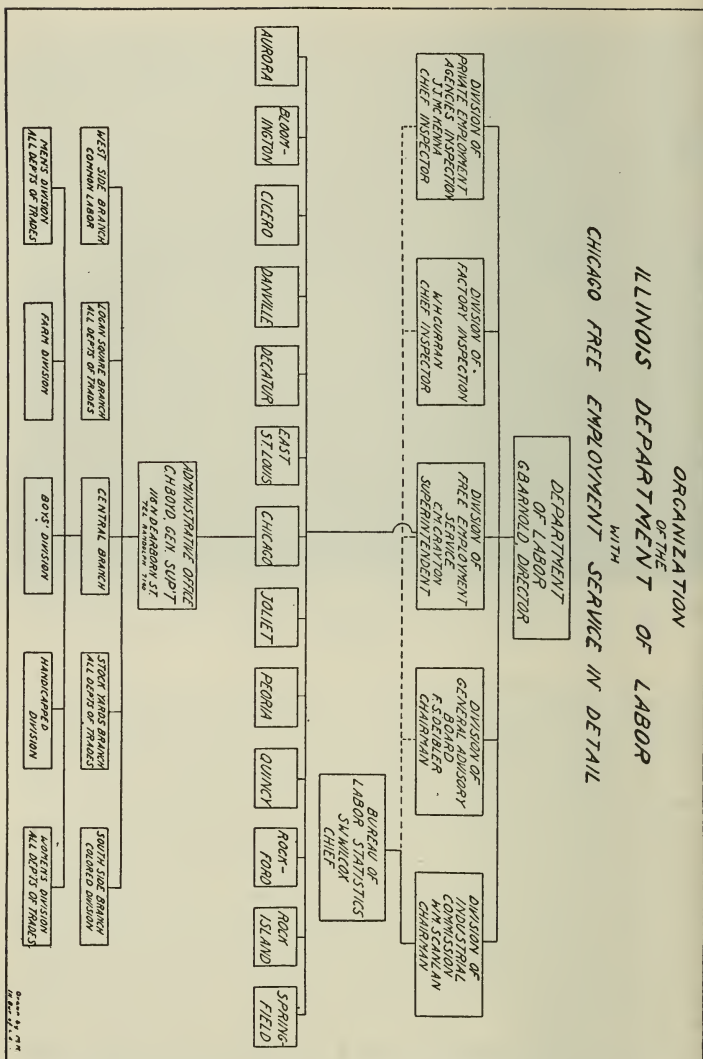


Bureau of Statistics, Illinois Industrial Commission, Department of Labor

for common and farm laborers is taken care of by the service. A large volume of work is also handled by the Rock Island office which is located in the center of one of the leading Illinois industrial communities. This office perhaps has the greatest demand for skilled factory hands in the State. Offices situated in Cicero, East St. Louis, Joliet, Rockford, Quincy and Peoria have also made a good record in placing factory workers. The coal strike has made the problem of unemployment particularly great in the area served by the Springfield division which, nevertheless, has placed 5,671 workers during the fiscal year 1926-1927.

In addition to its primary function of placing workers, the free employment service has been valuable as a source of information regarding the extent of unemployment. Each month, a detailed report of applications, jobs offered, number referred to jobs and actual placements is submitted to the Bureau of Labor Statistics of the Illinois

ORGANIZATION
OF THE
ILLINOIS DEPARTMENT OF LABOR
WITH
CHICAGO FREE EMPLOYMENT SERVICE IN DETAIL



Department of Labor which, in turn, compiles a ratio of applicants per 100 jobs. This information is made public each month in the Illinois Labor Bulletin. These reports may be obtained free of charge by writing to the Bureau of Labor Statistics, 300 West Adams Street, Chicago.

At the present time there is great need for better co-operation between states in the matter of unemployment. It is not at all infrequent that employers can not find sufficient workers in one part of the country and workers can find no jobs in another. Through providing means of closer organization, such difficulties can be almost entirely avoided.

INSPECTION OF PRIVATE EMPLOYMENT AGENCIES

JOHN J. MCKENNA, *Chief Inspector*

Almost anyone having trouble with his job, whether it be a matter of the collection of wages or a complaint against an employment agency, or a Trade School, may appeal to this office. An account of the various methods pursued to give these unfortunate persons the assistance they desire, cannot be given within the limits of a report. The question is often asked,—Why not arrest the offender? This is done in most cases, especially where there is an opportunity to get a conviction. But, in some cases, where the proof of intent to violate the law is absent, the best thing that can be done is to make them give the money back. The majority of people who apply to this Division for aid are unemployed and need help at once. To take a weak case to court is unfair to them, since they cannot spare the time to follow it through the numerous continuances. To do so would swell the number of prosecutions, but, on the other hand, it would fail to render the service as now given. In most cases the average amount of money involved is only ten to fifteen dollars, but it means bread and butter to the complainant whose principal concern is to have his money refunded.

During the past eight years 8,110 complaints were received and adjusted, resulting in the refunding of \$61,068.26 to those who complained. In addition to this

RATIO OF APPLICANTS PER 100 POSITIONS OPEN AT THE ILLINOIS FREE EMPLOYMENT
OFFICES
1920--1928

Year	Jan.	Feb.	Mar.	April	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1920.....	...	73	78	80	81	84	99	92	96	102	127	198
1921.....	274	261	216	203	220	240	216	211	195	167	207	210
1922.....	232	209	172	141	105	103	109	110	102	96	112	117
1923.....	132	104	96	86	91	100	112	113	106	117	131	146
1924.....	166	155	157	136	154	172	171	152	143	139	140	149
1925.....	188	174	161	143	145	148	153	139	120	122	126	146
1926.....	190	170	143	129	122	138	139	131	123	127	140	155
1927.....	215	204	175	153	154	180	170	165	147	163	182	180
1928.....	239	208	173	155	146

INSPECTION OF PRIVATE EMPLOYMENT AGENCIES.

1920—1928.

FISCAL YEAR ENDING JUNE 30.

	1921	1922	1923	1924	1925	1926	1927	1928
Licensed Agencies.	320	307	361	372	361	402	466	419
Daily Reports.....	14,064	15,220	15,115	15,120	14,310	16,790	17,960	15,112
Complaints investi- gated.....	546	662	760	1,290	1,056	1,146	1,220	1,430
Refunds secured for complainants.	\$4,911.41	\$5,702.14	\$5,717.70	\$8,603.00	\$7,031.00	\$8,058.78	\$8,636.43	\$12,427.75

the employment agencies were compelled to give other jobs to 2,063 persons. During this period the Deputy Inspectors made 35,480 bi-monthly reports on employment agencies and 123,691 daily inspection reports. There were 1,672 special investigations made.

The work of this Division is not entirely devoted to private employment agencies. For the past three years it has been compelled to give much attention to trade schools in Chicago. During 1925 complaints began to come in against trade schools that were promising jobs to all who agreed to take the course of training they had to offer. Numerous arrests were made in this connection, mostly of the "Loop Salesmen" who were advertising that a large salary could be had while taking their course.

In 1926, the Attorney General rendered an opinion to the effect that schools, offering employment as a bait to get students, were operating a private employment agency and were subject to the law governing such agencies. Employment licenses were then issued to trade schools and their salesmen, giving them the first supervision they had experienced. This plan, however, failed to cure the evil, and so, upon recommendation of this Division, and through the efforts of the Director of Labor, House Bill No. 357 was passed by the Fifty-fifth General Assembly, which is an Act to regulate Professional Correspondence Schools and Manual and Mechanical Trade Schools. Section 1 of this Act states: "After the first day of January, 1928, it shall be unlawful to conduct a professional correspondence school, or a manual or mechanical trade school without a certificate of registration issued by the Department of Registration and Education." This means in short that schools which in the past have represented themselves as colleges and universities will now be forced to show just what they have to offer to prospective students, and the State will see that these schools are in a position to supply the promised training before a license is issued to them. The various agencies receiving complaints from students in

the past, are unanimous in their praise of this law. This Division is interested in it from the standpoint of employment, for, as noted in its report on trade schools, the latter, separated from the licensed private employment agencies, can now be prevented from selling the student a job, when he believes that he is buying a training course.

The value of this law cannot be fully realized by the average citizen, but to the boy in the small community, who in the past has been lured to the city by the elaborate advertising and promises of these trade schools in Chicago, it will afford protection from the faker, and it will also compel the licensed school to be properly equipped to teach and train the students who enroll.

DIVISION OF FACTORY INSPECTION

W. H. CURRAN, *Chief Factory Inspector*

In 1893 the first regular report on Factory Inspection in Illinois was made to the Governor. From that time until 1917 the Factory Inspection service existed as a separate State department, but the Civil Administrative Code enacted in 1917 empowered the Department of Labor to exercise the duties of the Factory Inspection service. In practice these duties have been delegated by the Director of Labor to the Chief Factory Inspector.

The laws which are enforced by the Division of Factory Inspection are listed below, somewhat in the order of their importance in the work of the Division:

- Child labor law
- Women's ten-hour law
- Health, safety and comfort law
- Bedding law
- Blower law
- Structural law
- Wash house law
- Occupational disease law
- Garment law

1. Child Labor Law

This law is designed to keep children under 14 years of age out of employment in industry and trade. It does

not apply to agriculture or domestic service. Supplemented by the compulsory school attendance law, its intent is not only to prevent growing children from too early and harmful employment but also to guarantee to them the leisure to attend school. The child labor law also requires that children 14 to 16 years of age have employment certificates before they may work. This provision is intended to guarantee that a child under 16 years of age who goes to work shall have had at least six grades of schooling and shall be employed in an occupation which is not dangerous and which is suited to his physical development at the time he starts to work. Before a child under 16 years is granted a certificate he must prove that he is at least 14 years old and has finished at least the sixth grade in school; he must present a promise of employment from his prospective employer; and he must pass a physical examination.

The Division of Factory Inspection is responsible for interpreting the provisions of the law and for inspecting those establishments which are under the jurisdiction of the child labor law. It also prosecutes violators of the law. The issuance of employment certificates is performed by local school superintendents or their authorized representatives, but a copy of every certificate issued has to be sent to the Division of Factory Inspection.

2. Women's Ten-Hour Law

In specified occupations women in Illinois may not work more than ten hours a day. No limitation is set to the number of hours or days per week which women may work. Technically, therefore, women may be employed as long as seventy hours a week. Actually, very few cases of such long hours are found. Small establishments which are open evenings are likely to be the worst violators of the ten-hour law.

The Division of Factory Inspection inspects the establishments under this law to see that time records are kept, to discover violations and, if necessary, to prosecute the violators.

3. Health, Safety and Comfort Law

This law endeavors to set standards for the safety and health of the workers in factories, mercantile establishments, mills and workshops. It deals with machinery, sanitation and ventilation. The Chief Factory Inspector has tried to cooperate with manufacturers of new machinery in order to be sure that new machinery is up to the standard set by the law.

4. Bedding Law

Although this is not a law primarily for the benefit of the worker, in a secondary sense it is for the conservation of the public health, and its enforcement has been assigned by the Legislature to the Chief Factory Inspector.

The law provides that all bedding sold in Illinois shall be marked by a label or tag which shows whether the material of which the bedding is made is new or used.

5. Blower Law

The Blower law is an Act requiring the use of blowers upon metal polishing machinery in order to protect the workers by carrying off the dust. Unfortunately, the Act does not apply to small shops employing not more than one man in such work.

6. Structural Law

This law provides for the safety of persons in and about the construction, repairing, alteration, or removal of buildings, viaducts, and other structures. Its enforcement is shared by the Division of Factory Inspection with local authorities having jurisdiction over building laws.

7. Wash House Law

Owners and operators of coal mines, steel mills, foundries, machine shops and similar businesses in which employees necessarily become covered with grease, dirt and perspiration are required to provide for their workers wash rooms with lockers, facilities for changing

clothes, and showers. These rooms must be heated during cold weather.

8. Occupational Disease Law

This is an important law in protecting workers in establishments where certain substances or poisons specified in the law are handled which may cause occupational disease. The Division of Factory Inspection inspects such establishments and also investigates individual cases of occupational disease. Compulsory monthly examinations of employees in these establishments are required and are reported to the State Board of Health which submits a copy of the reports to the Division of Factory Inspection.

The law needs to be made more general in order that more workers exposed to poisonous substances may be protected. Since this law was passed, many more substances, fumes and dusts have been found to be injurious to health of the workers, and new industries have arisen which should be included under the law.

9. Garment Law

This law regulates the manufacture of clothing in dwellings. The Division of Factory Inspection shares responsibility for its enforcement with the State Board of Health. The provisions of the child labor law and of the health, safety and comfort law give greater authority to the Division of Factory Inspection than does the garment law; therefore inspections to enforce the garment law are made under these laws rather than under the garment law itself.

Codes

In several of its annual reports, the Division of Factory Inspection has urged the development of administrative codes in the enactment of labor legislation. Conditions in industry have been changing rapidly, and the labor laws passed some years ago are no longer adequate. With the best of intentions, legislatures are not sufficiently acquainted in detail with the technical conditions in the

industries which they are regulating by law to be able to formulate the exact measures by which workers are to be protected.

To meet this situation, some states have passed general legislation in respect to safety or other subjects, but have granted the power to decide upon the specific requirements to the board in charge of the administration of the law. Sometimes the details are worked out and agreed upon by conferences of representatives of employers and employees. After decisions are made, they are given the force of law. Changes are made, when necessary, in the codes thus developed with greater ease and with what are probably more satisfactory results than would be the case when the Legislature has to change details in the laws.

THE INDUSTRIAL COMMISSION

WILLIAM M. SCANLAN, *Chairman*

The work of the Industrial Commission is the administration of the Workmen's Compensation Act on behalf of injured workers. Typically, the manner in which a case comes before the Commission is as follows: A workman is injured during the course of his employment. He must notify his employer of the accident within thirty days in order to be entitled to compensation. The employer, in turn, is required by law to supply the injured wage earner with necessary medical, surgical and hospital services and also additional compensation. In the vast majority of cases, no difficulty arises over the application of the law—the employer and employee are able to reach a mutually satisfactory settlement. But occasionally, the employer and the injured employee are unable to agree in regard to the amount of compensation due. In that case, one of the dissatisfied parties files with the Industrial Commission an application for adjustment of his claim through arbitration. There are ten arbitrators in the service of the Commission who devote

all of their time to hearing evidence on disputed cases. The work of the arbitrators is divided geographically as follows: Seven of the ten arbitrators are stationed at Chicago; five of these spend practically all of their time hearing cases in Chicago, and the other two make such trips into the rest of the State as are necessary. Of the three remaining arbitrators, one has his headquarters at Peoria, one at Harrisburg and one at East St. Louis. Each of the arbitrators at these three centers has a regular itinerary for the territory adjacent to his headquarters, planned in such a manner that he holds monthly hearings at various towns and cities.

At the hearing, witnesses and, commonly, attorneys appear, and of course the injured employee if it is possible for him to do so. It is a common practice to have the employee examined before the hearing in order to discover scientifically the exact nature and extent of the injury, for often the dispute is concerning the extent to which the employee's earning power has been diminished by the partial loss of the use of one of his members. Those who give evidence are sworn and testimony is heard from both sides. As soon as a decision is reached by the arbitrator, he files it with the Industrial Commission, and the Commission at once sends a copy of the decision to each party or to his attorney.

Upon receipt of a copy of the arbitration decision, such decision becomes binding on both parties as the decision of the Commission—unless a party who is dissatisfied with the award files within 15 days of receipt of the arbitration decision a petition for review, and within 20 days an agreed statement of the facts brought out at the arbitration, or a correct stenographic report of the arbitration proceedings.

If the procedure just indicated is complied with, the Industrial Commission is required by law to review the arbitrator's decision promptly. The hearing on review usually is held before one member of the Commission. But either party may demand—and this is frequently the

case—an oral argument before not less than a majority of the Commission. At the review hearing, in addition to the agreed statement of facts or stenographic report of the original arbitration hearing, further evidence may be offered by either party. Continuous hearings are held at Chicago and usually monthly at Springfield, East St. Louis, Danville, Decatur, Peoria, LaSalle and Harrisburg. Occasional hearings are held at Rock Island, Cairo, Rockford, Freeport, Joliet and at other places where there are a sufficient number of cases to justify it.

After a review hearing, the Commission files in its office the decision in the case and immediately sends to each party or his attorney, a copy of the decision. If either party feels dissatisfied with the decision, he may obtain from the Circuit Court a writ of certiorari to the Industrial Commission which gives the Circuit Court power to review all questions of law and fact that are contained in the record of the hearing before the Commission. The Circuit Court may confirm or set aside the decision of the Industrial Commission. If the decision is set aside, "the court may enter such decision as is justified by law or may remand the cause to the Industrial Commission for further proceedings and may state the questions requiring further hearing, and give such other instructions as may be proper."

A final step provided by the Workmen's Compensation Act for the disposition of disputed cases is that judgments and orders by the Circuit Court may be reviewed by the Illinois Supreme Court upon a writ of error "which the Supreme Court in its discretion may order to issue." Some of the decisions of the Supreme Court are of fundamental importance in interpreting the provisions of the Workmen's Compensation Act. More than 450 workmen's compensation cases have been reviewed by the Illinois Supreme Court.

In this process of administration the Commission has attempted to give the employers and employees such an understanding of the act and its operation that it will

tend to work automatically—questions of compensation being settled directly by the parties involved. The extent to which this has been done is indicated by the accompanying diagram.

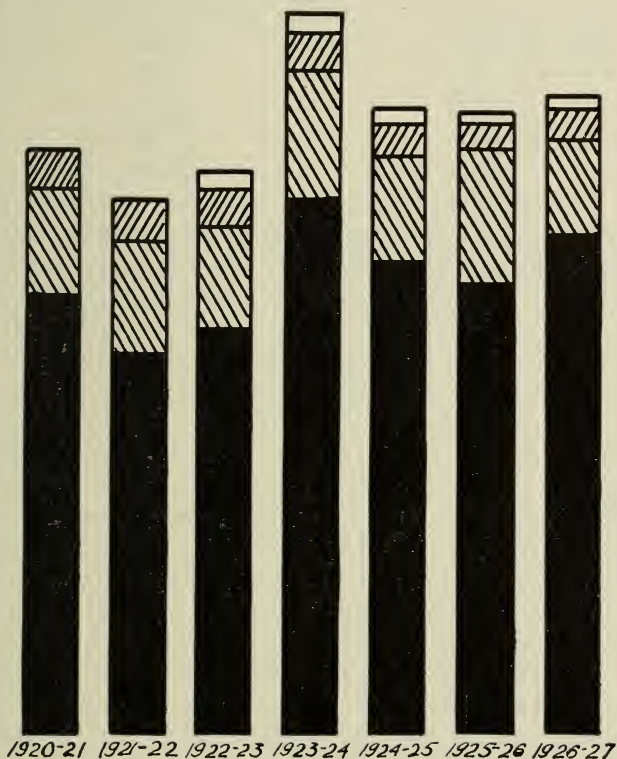
Thus in 1926, of the 58,000 compensable accidents, more than 80 per cent were settled without dispute. Of the remaining 11,000, which involved claims for arbitration, only 3,400 were heard by arbitrators, the remainder having been decided by the interested parties prior to the arbitration hearings. Finally, 2,100 of the arbitrators' decisions were accepted as given, leaving only 1,300 (2 per cent of the total number of compensable accidents) coming up for review before the Commission. Most of the cases appealed from the Commission to the Circuit or Supreme Courts have been confirmed.

The Commission is assisted by its Medical Department which, when necessary, conducts a free examination of the injured and reports its findings to the Commissioners, thus permitting an impartial conclusion as far as the nature and extent of the injury is concerned, which is essential to determining the amount of compensation warranted by the case.

Through its Securities Department the Industrial Commission undertakes to make certain that all employers subject to the Compensation Act make adequate provision for the payment of compensation to their employees in case of accidents. The employer may elect to carry his own risk, in which case a sworn statement of his financial condition, approved by the Commission, is necessary; or to file a bond, or deposit satisfactory securities, sufficient to cover losses, with the Commission; or, finally, to insure his compensation liability in some insurance company licensed by the State. This third method is the one usually adopted and necessitates the examination of the insuring companies to determine their financial status. Forty-nine such examinations were made in 1926.

The extent of the Securities Department's work is indicated by the number of employers, who, coming un-

OPERATION OF WORKMEN'S COMPENSATION ACT 1920-1927



LEGEND

- Compensable Accidents*
- Arbitration Decisions*
- Arbitration Claims*
- Petitions For Review*
(not available for 1920-22)

der the Compensation Act, are constantly checked to see that they are properly insured—notice of policies and their termination being sent to the Commission for each employer by his insuring company:

TABLE 1

Year ending	Number of employers making arrangements through Securities Dept. for Compensation payment.
June 30, 1921	68,000
" " 1922	73,500
" " 1923	85,000
" " 1924	96,000
" " 1925	113,000
" " 1926	140,000

The Workmen's Compensation Act, around which centers the work of the Industrial Commission, has undergone modifications at practically every General Assembly since 1921, although there were none materially affecting labor prior to 1925. Dating all references back to 1921, the following is a brief outline of important changes:

1. **Scope.** The scope of the Act as regards the types of employments automatically covered remained unchanged until 1925. In that year the scope was extended to include all accidents which occurred outside of Illinois, provided the employment contract was entered into in Illinois. An addition to the employments automatically under the Act was made in the same year, so as to include accidents in connection with aerial service and loading and unloading connected with such service.

In 1927, two more types of employment not previously covered were included, that connected with the "laying out or improvement of subdivisions of tracts of land," and, secondly, "any enterprise for the treatment of cross ties, switch ties, telegraph poles, timber or other wood, with creosote or other preservatives."

2. **Medical attention.** Prior to 1925, the employers' liability for medical and surgical expenses for an industrial accident was limited to a period not to exceed 8 weeks, nor to exceed an amount of \$200. In 1925, this

limitation was removed. The employee is now entitled to all medical, surgical and hospital services which are necessary reasonably to cure or relieve him from the effects of the injury. He is also entitled, since July 1, 1925, to an artificial arm, hand, leg, foot or eye if he has lost his own in an accident. The Act effective July 1, 1927, also includes the replacement of teeth.

3. **Compensation.** Changes have been made in the amounts of compensation payable for various types of accidents so as to keep these payments commensurate with changed prices and adjusted so that they will represent equitable compensation. The following tables show these changes. Table 2 presents the increases in the maximum and minimum weekly compensation payments, specified by the law, according to the number of dependent children of the injured employee, and by the year the given change in the Act was made.

TABLE 2
MINIMUM AND MAXIMUM WEEKLY COMPENSATION
PAYMENTS
MINIMUM

Children under 16 years	1919	1921	1923	1925	1927
0	\$ 7.00	\$ 7.50	\$ 7.50	\$ 7.50	\$ 7.50
1	8.00	8.50	8.50	11.00	11.00
2	9.00	9.50	9.50	12.00	12.00
3	10.00	10.50	10.50	13.00	13.00
4 or more.....	10.00	10.50	10.50	14.00	14.00
MAXIMUM.					
0	\$12.00	\$14.00	\$14.00	\$14.00	\$14.00
1	13.00	15.00	15.00	15.00	15.00
2	14.00	16.00	16.00	16.00	16.00
3	15.00	17.00	17.00	18.00	18.00
4 or more.....	15.00	17.00	17.00	19.00	19.00

The increases in compensation allowed for specific losses or losses of use are indicated in the following table. Note that in this case compensation is expressed in the number of weeks during which the injured employee is entitled to weekly compensation payments. The first change in this type of compensation was made in 1925.

COMPENSATION PROVISIONS IN DOLLARS FOR DEATH OR PERMANENT TOTAL DISABILITY.

Dependency	1913	1915	1917	1919	1921	1923	1925	1927
Widow—No children under 16								
Regular.....	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.
Minimum.....	\$1,650	\$1,650	\$1,650	\$1,650	\$1,650	\$1,650	\$1,650	\$1,650
Maximum.....	\$3,500	\$3,500	\$3,500	\$3,500	\$3,750	\$3,750	\$3,750	\$3,750
Widow—1 child under 16—								
Regular.....	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.
Minimum.....	\$1,650	\$1,650	\$1,750	\$1,750	\$1,750	\$1,750	\$2,000	\$2,150
Maximum.....	\$3,500	\$3,500	\$3,750	\$3,750	\$4,000	\$4,000	\$4,100	\$4,200
Widow—2 children under 16—								
Regular.....	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.
Minimum.....	\$1,650	\$1,650	\$1,850	\$1,850	\$1,850	\$1,850	\$2,100	\$2,250
Maximum.....	\$3,500	\$3,500	\$4,000	\$4,000	\$4,250	\$4,250	\$4,350	\$4,450
Widow—3 or more children under 16—								
Regular.....	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.	4 A.Y.E.
Minimum.....	\$1,650	\$1,650	\$1,850	\$1,850	\$1,850	\$1,850	\$2,100	\$2,250
Maximum.....	\$3,500	\$3,500	\$4,000	\$4,000	\$4,250	\$4,250	\$4,350	\$4,550

4 A.Y.E. = 4 times the average yearly earnings.

Table 4 shows the amounts to which widows and children under 16 are entitled if the employee is killed. The same table applies when an employee is permanently and totally disabled.

The Mediators and Conciliators, functioning in industrial disputes under the Voluntary Arbitration Law, were placed by the Code under the supervision of the Industrial Commission. Their work has been that of hearing the cases of the two parties in labor disagreements, attempting to arrive at some decision which will be sufficiently satisfactory to prevent an interruption of the normal operation of industry. The extent of this work is of course dependent upon business conditions, industrial friction usually accompanying discrepancies between wages and price-level movements.

During 1920-1921 the Mediators and Conciliators reported that eleven actual or threatened strikes had been averted through their efforts. The following two years saw strikes which involved large numbers of wage earners and consumers. For the years 1923-1926, although there was relatively little labor trouble, two serious strikes were threatened, that in the Illinois Traction System and that of the coal teamsters and chauffeurs in Chicago, both of which were reported by the Mediators as settled.

Department of Mines and Minerals

A. D. LEWIS, *Director*

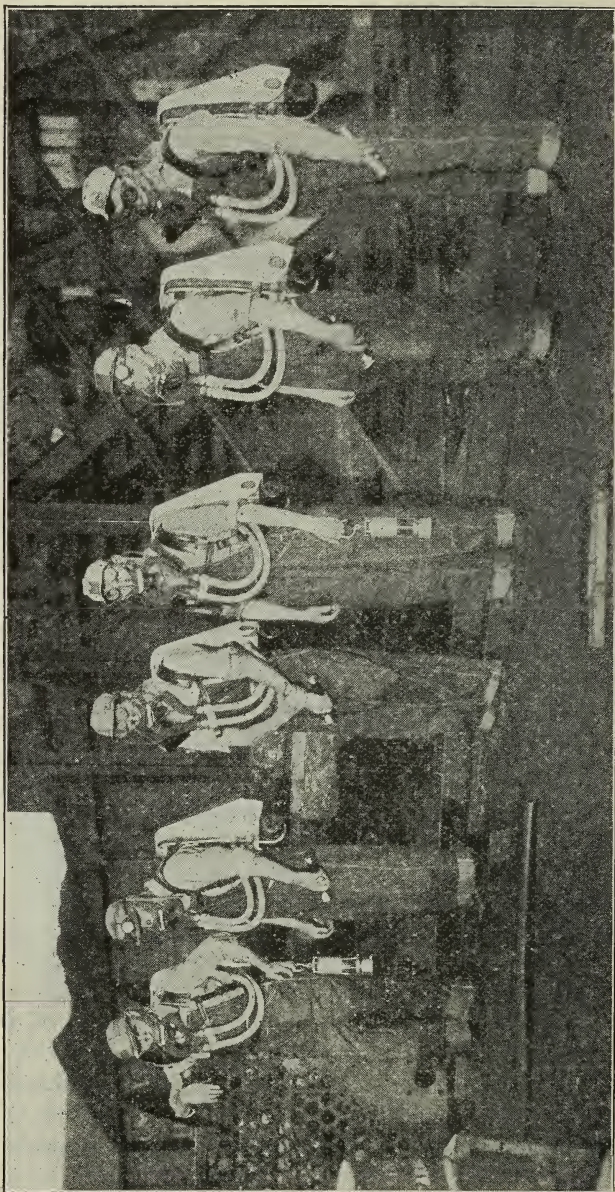
THE DEPARTMENT of mines and Minerals was organized immediately after July 1, 1917, under the Civil Administrative Code, by which it was given the authority to exercise the rights, powers and duties heretofore invested by law in the State Mining Board, the State Mine Inspectors, the Miners' Examining Commission, the Mine Fire Fighting and Rescue Commission and also other powers, rights and duties.

Under this Department have been organized the following divisions:

- (1) General Office.
- (2) Inspection.
- (3) Miners' Examination.
- (4) Mine Rescue and First Aid.
- (5) Economic Investigation.
- (6) Fluorspar.

The General Office Division has charge of the clerical work of all other Divisions and through it all statistical reports are collected, tabulated and printed in one volume, known as the Annual Coal Report. Under this Division, also, examinations are held by the State Mining Board of all persons seeking certificates of competency as inspectors of mines, mine managers, hoisting engineers and mine examiners. This Board consists of four members appointed by the Governor, of which the Director of the Department of Mines and Minerals is executive officer.

The Division of Inspection is composed of thirteen State Inspectors, one Inspector for each of the twelve districts into which the State is divided, and one Inspector-at-Large, whose duty it is to inspect all mines in the



Mine rescue team equipped and ready to enter mine for rescue work



Mine rescue team practicing first aid to the injured as taught at the Illinois mine rescue stations



Mine Rescue Station, Springfield

State at least once every six months, and oftener if necessary.

These inspections are carefully made and show the condition of the mine, together with recommendations for correcting defects, if any. Reports are made on blanks furnished for that purpose. One copy is posted at the mine and another sent to the General Office. The latter is placed on file for future reference.

It is also the duty of the Inspectors to investigate all fatal and serious accidents at the mines, to collect and forward to the General Office all reports required by law to be made, and to enforce, through the proper channel, all laws respecting the operation of coal mines.

The Miners' Examination Division is composed of four members appointed by the Governor, known as the Miners' Examining Board, whose duty it is to examine all persons seeking certificates of competency as coal miners. In performing this duty the Board holds twelve meetings each month in as many different places in the coal fields of the State.

The Mine Rescue and First Aid Division is charged with the duties of fighting mine fires and of saving lives and property jeopardized by fires, explosions, or other accidents in the mines, and with rendering aid to the injured. To carry out these provisions, there were created by an Act of the General Assembly approved March 4, 1910, three rescue stations to serve the northern, central and southern coal fields of the State.

Soon after the passage of the Act, stations were established at LaSalle, Springfield and Benton. In December, 1914, sub-stations were provided at Harrisburg and Herrin, and later one at DuQuoin. These were made regular stations July 1, 1917. The Fifty-fifth General Assembly, by Acts approved June 1, and July 6, 1927, respectively, provided for the establishment of a station at Belleville and one at Johnston City. Each of these stations is in charge of a Superintendent having under his control a class of men known as the Mine Rescue Team

which is ready at all times to respond to a call for help. At these stations instructions are given in mine rescue methods and in rendering first aid to the injured.

The Division of Economic Investigation was organized in 1917 and is in charge of an Investigator who is appointed by the Governor. This officer is charged with the duty of making inquiry into the economic conditions affecting the production of all minerals except coal, fluor-spar, lead and zinc, and with assisting in the investigation of mine disasters.

The Fifty-second General Assembly, by Act approved June 29, 1921, effective January 1, 1922, passed what is known as the Mines-Inspection Act. This law applies to the mining of minerals other than that of coal and those coming under the Division of Economic Investigation and at the present time is confined to fluor-spar, lead and zinc mines.

In January, 1922, the Division of Fluorspar was organized under the Act above cited and an officer was appointed by the Governor to have charge of the enforcement of its provisions through the proper channels.

Work Accomplished

A brief review of the work of the various divisions of the Department of Mines and Minerals during the seven and a half years (to June 30, 1928) that Governor Small has been the Chief Executive of the State is given by Divisions.

General Office

In addition to compiling and tabulating reports of the Department and disposing of all complaints and charges brought before it, the Mining Board has held twenty-nine examinations during the time above specified, and as a result of these examinations 70 men received certificates of competency for State Inspector of Mines, 1,449 for Mine Manager, 813 for Hoisting Engineer, and 1,206 for Mine Examiner. A record of all examinations is kept in this office and a card index

made of all persons passing these tests. A card index is made for all fatalities in the mines and also for all persons completing the course in mine rescue methods and first aid to the injured. The names of those who pass the test for practical miner are recorded and kept on file. The records and files of this office are kept in an up-to-date and businesslike way.

INSPECTION DIVISION

The work of this Division can be given here only in a summarized statement. During the time covered by this report the twelve Inspectors worked an average of 1,435 days, or a yearly average of 284 days. They made a total of 10,766 inspections, or 113 inspections each, per year. Other duties, such as testing scales, investigating accidents, hearing and passing upon complaints, and acting in an advisory capacity with mine officials and employees, require a large part of the time of each Inspector. It is very gratifying to the Department that the work of the Division has been so free from complaint or criticism.

Miners' Examination

The work of this Division is confined to passing upon the qualification of persons as practical miners. During the seven and a half years of Governor Small's administration the Board has held 1,024 examinations, issued 43,941 certificates to qualified miners and collected in fees \$87,882.

The tests made by the Board are along practical lines and emphasis is placed on carefulness in avoiding and remedying dangerous places and impressing the applicant with the fact that his own safety and that of his fellow workmen rests in a great measure upon him.

The result of this method on the part of the Board is reflected in the lessening of the ratio of accidents to the amount of coal produced.

MINE RESCUE DIVISION

There are now eight mine rescue stations in the State, but two of them were so recently established that they are not included in the work accomplished by this Division. Therefore the summary of the work done since 1921 is credited to the stations located at LaSalle, Springfield, Benton, Eldorado, Herrin and DuQuoin.

These stations are in charge of a Superintendent who has under his command a team of five men well trained in mine rescue methods, ready to respond on call whenever help is needed. Calls for help come frequently from places other than coal mines and are readily responded to in each case. During the time covered by this report a great number of these miscellaneous calls were made and in some instances lives have been saved. Since 1921 a number of mine disasters caused by gas explosions, mine fires, etc., have occurred in which several lives were lost. In all of these cases, invaluable service was rendered by the mine rescue teams in rescuing imprisoned men, administering first aid to the injured, recovering the bodies of the dead and saving the properties.

Next to the importance of saving lives and property and aiding the injured is the training of men and women in the most scientific methods of rescue and first aid work. During the past seven and a half years 2,962 men have received training in the most approved methods of mine rescue and 30,189 men and 3,002 women have been certified as completing the course of instruction in administering first aid to the injured. The interest in this work is growing rapidly. Operators are becoming enthused over its importance and are lending all the aid possible in promoting this work. As a result of a campaign inaugurated by this Department two years ago, 25,499 men and women have received training and 14 of our largest mines have become 100 per cent proficient in this work. That is, every employee in these mines has been trained. To the companies reaching 100 per cent effi-

ciency the Department issues a certificate showing the fact.

During the present administration mine rescue teams from this State have won first prize in three International Contests. The Benton team was awarded the prize in both mine rescue and first aid at Salt Lake City. The Belleville team won the contest in both events at Springfield, and a team organized by the Madison Coal Corporation graded above all other teams in mine rescue methods at the contest held in San Francisco.

The importance of this work cannot be over-estimated and it is gratifying to see the interest and enthusiasm displayed by the operators as well as the men themselves.

Economic Investigation

This Division, under the supervision of the Investigator, is charged by law with the duty of inquiring into the conditions relative to the production of all mineral substances except coal, fluorspar, lead and zinc. The recognized industries under this Division are classified as limestone, oil and gas, sand and gravel, shale and clay, and silica. The Investigator keeps in touch with the proprietors of these industries, advises them in regard to working conditions and improved methods, when called upon. He collects annual reports of production and condition of the various plants of each industry, which he sends to the General Office for tabulation and publication. The fact that one, or more, of these industries is found in each of the 72 counties of the State indicates the large amount of work that must be done each year by the officer in charge of this Division.

A brief summary of the activities of these industries may be of interest and value, and is here given as a yearly average for the last seven and a half years.

Limestone: The average annual production from forty-seven quarries, 8,611,495 tons. Average number of men employed, 4,648.

Oil and Gas: Average number of wells, 14,679. Employees, 1,610. Production, 7,972,932 barrels of oil, and 1,812,217,000 cubic feet of gas annually.

Sand and Gravel: Eighty-eight pits, working 783 men, produced 6,471,864 tons as an annual average.

Shale and Clay: Average tons produced, 3,344,758 from ninety-one plants, employing 5,320 men.

Silica: The annual average for this industry is sixteen plants, 365 employees, and 1,131,618 tons.

Fluorspar

This Division was organized in January, 1922; hence the work here outlined is for six and one half instead of seven and one half years. The officer in charge of this Division is designated Fluorspar Inspector. He has under his jurisdiction the operation of all fluorspar, lead and zinc mines in the State and is charged with the duty of inspecting and enforcing the law governing the same. He visits these mines at regular intervals and makes reports on their condition, methods of operation, working conditions inside and outside, and acts in an advisory capacity to both operators and employees. Annual reports are collected by him which are sent to the General Office to be tabulated and published. There is a great deal of prospecting work and opening of new mines in the fluorspar field of Hardin and Pope counties and much of the Inspector's time is consumed with these prospectors and companies in conferences and investigations.

The average yearly production of these mines is shown to be:

Fluorspar: 71,739 tons.

Lead: 3,484 tons.

Zinc: 9,414 tons.

The production of fluorspar has not passed the experimental stage. The Illinois field is one of the most important in the country, and, when fully developed, will add materially to our mineral wealth. This Division of the Department of Mines and Minerals will then become of much greater importance.

In Conclusion

In conclusion of this brief report, attention is called to the fact that great progress has been made in the reduction of accidents, both fatal and non-fatal. The ratio of accidents to the amount of coal produced and the number of men employed compares most favorably with that of any other large coal-producing State in the Union. Our explosion hazards have been reduced very materially. This has been effected by the efficiency of the inspection service and the installation of numerous safety devices and appliances in many of our most dangerous mines. Safety campaigns have been inaugurated by officials of the Department which are attended with much interest by miners and mine officials and various outside agencies which have become interested in the movement.

The personnel of the Inspection Service and the Mine Rescue Division is composed of men who have devoted their lives to the study of mining problems and of the operation of mines in various parts of this country and Europe and are thoroughly familiar with mining methods in this State. The Department has also received at all times valuable encouragement and assistance from Governor Small and under his administration the number of mine accidents has materially lessened and mining conditions have been greatly improved.

Department of Public Works and Buildings

CORNELIUS R. MILLER, *Director*

DON GARRISON, *Assistant Director*

DIVISION OF HIGHWAYS

FRANK T. SHEETS, *Chief Engineer*

WHEN Governor Len Small took office in January, 1921, there had been constructed on the \$60,000,000 State Bond Issue System a little over 700 miles of hard-surfaced pavement out of the total mileage of approximately 4,800 miles provided by law. Conditions at that time were not favorable for road building because of prevalent high prices, and the economic prosecution of a sizable road program was seriously handicapped. The first road letting under Governor Small's administration was held on February 18, 1921, on which date bids were taken for the construction of a large mileage of roads on this system. When the bids were analyzed, it was found that the price for an 18-foot concrete pavement averaged between \$39,000 and \$40,000 per mile for work which included a normal amount of grading, culvert, and bridge work. The bids received on the same date for separate grading and bridge work were proportionately high. Governor Small felt that the bid prices submitted did not reflect prevalent economic conditions and accordingly rejected all bids received. In doing so he issued a public statement to the effect that no contracts would be let for an 18-foot Portland cement concrete pavement which included a normal amount of grading, culvert, and bridge work if the price exceeded \$30,000 per mile. In setting this figure he did not claim that all roads on the system could be built for \$30,000 per mile. He fully realized that in certain sections topographic conditions were such that

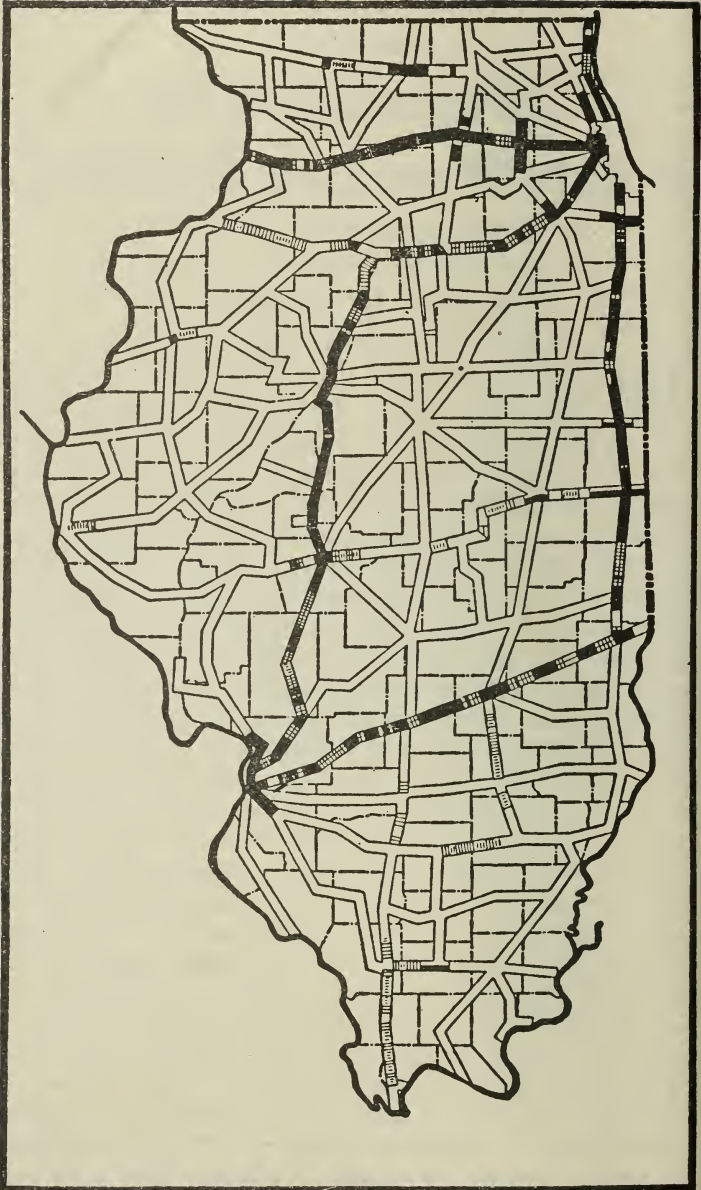


Fig. 1.—Status of Highway construction January 1, 1921

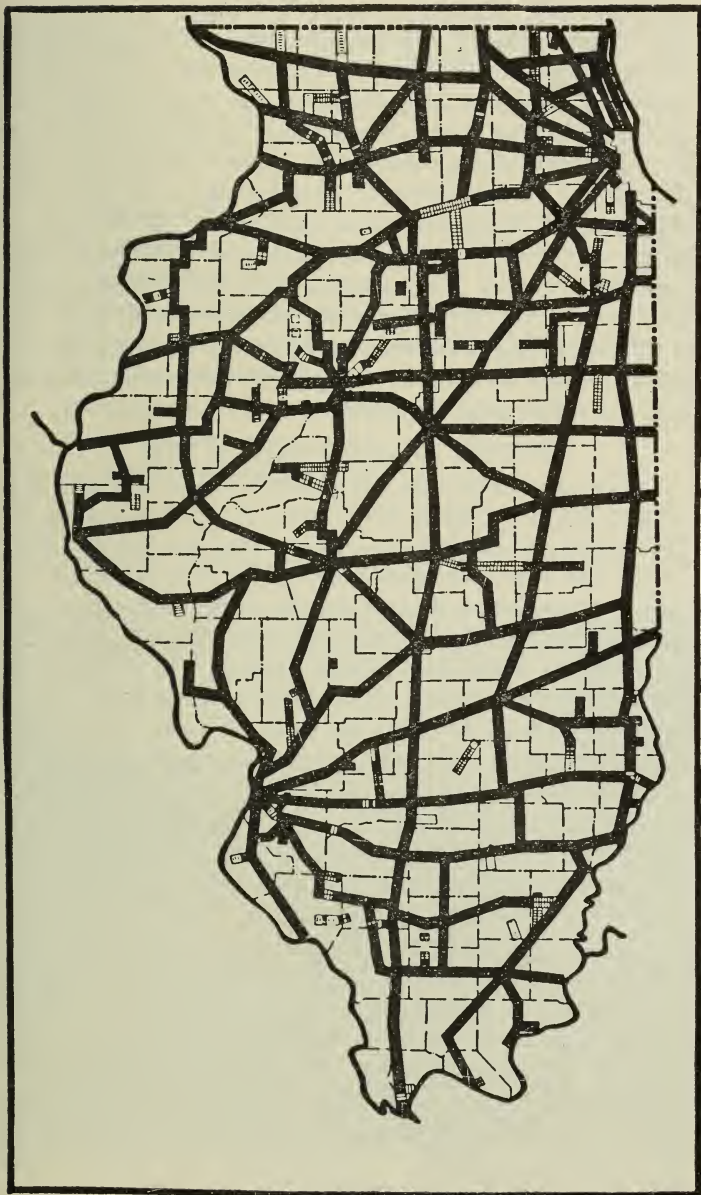


Fig. 2.—Status of Highway construction July 1, 1928

deep cuts and heavy fills must be made and large bridges constructed, that such work was expensive, and that at times the total cost of portions of the system would exceed \$30,000 per mile. His decision to reject all bids received at this letting resulted in a storm of criticism on the part of certain interests who did not understand the conditions of the construction market and on the part of others who demanded that the road construction proceed regardless of cost. Nevertheless, bids taken subsequently were well within the \$30,000 per mile limit and there was a corresponding reduction in the price of grading and bridge work. During the year, 704 miles were awarded and 414 miles were constructed.

World's Record Broken in 1922

The year 1922 was the greatest in the highway history of the State up to that time. A world's record for the amount of hard-surfaced pavement laid by any state in any one year was established by the completion of 741 miles of pavement, directly by the State or by the counties under State supervision. Of this mileage, 547 miles were on the State Bond Issue System. At the peak of the construction season, the rate of construction reached the high mark of 41 miles per week, and had it been possible to maintain this rate throughout the entire season, a much greater mileage would have been completed. However, the coal strike, the rail strike, the car shortage, and the priority orders of the Interstate Commerce Commission curtailed work in mid-season when the weather conditions were the most favorable. In spite of these handicaps, the construction activities forged ahead and Illinois achieved an enviable record in the face of almost insurmountable difficulties. The year 1922 also marked the completion of the Bates Experimental Road tests, an epoch in highway research work. These tests resulted in the adoption of a standard design for a Portland cement concrete pavement which not only increased the road-carrying capacity of the pavement but reduced the first cost about \$1,600 per mile.

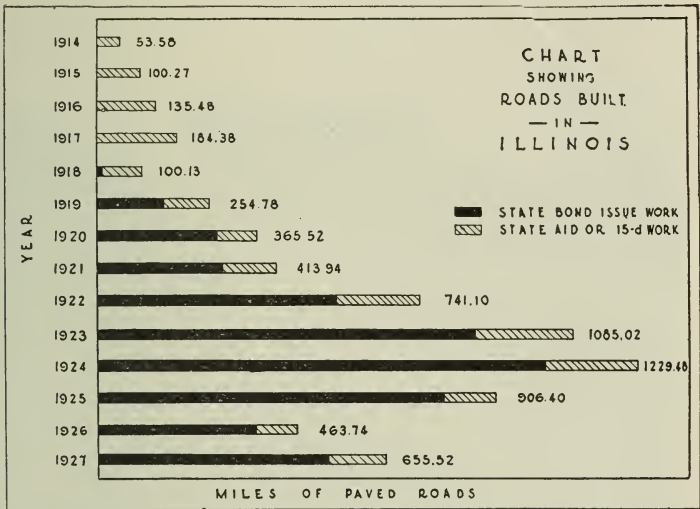


Fig. 3.—Chart showing mileage of pavement completed from 1914 to 1927, inclusive



Fig. 4.—Bond Route 2, Section 38. Looking north from Castle Rock, Ogle county



Fig. 5.—View of modern concrete pavement with wide shoulders

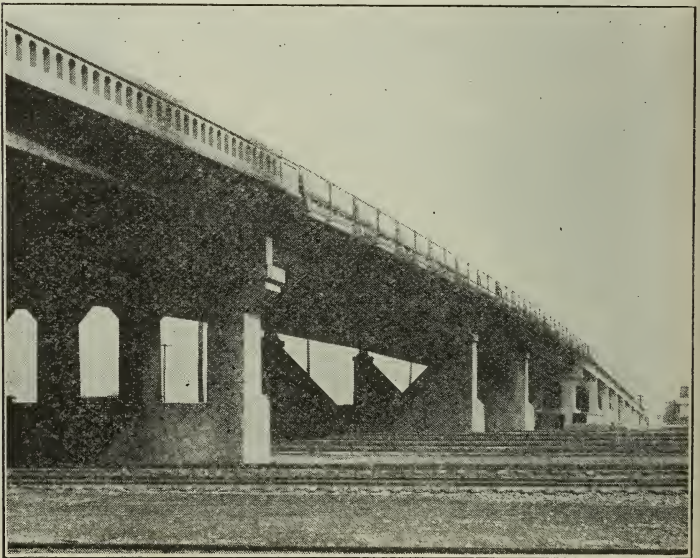


Fig. 6.—Viaduct over tracks of Indiana Harbor Belt Railroad at Riverdale



Fig. 7.—Before construction: Bond Route 5, Section 25

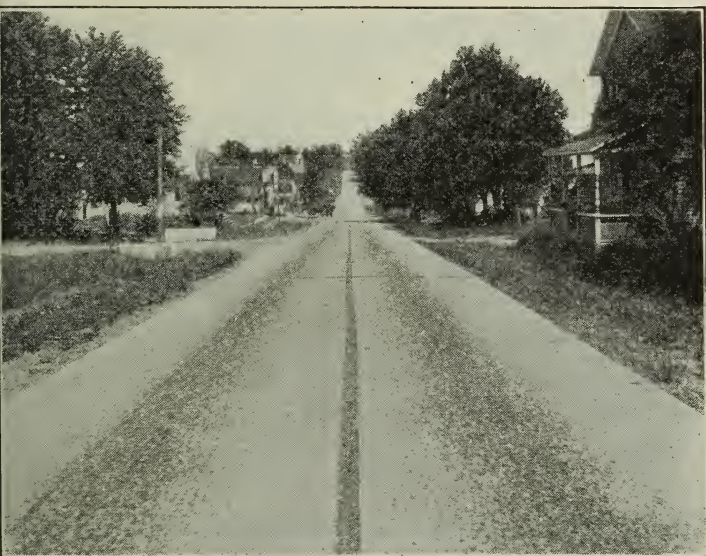


Fig. 8.—After construction: Bond Route 5, Section 25



Fig. 9.—Before construction: Bond Route 5, Section 30

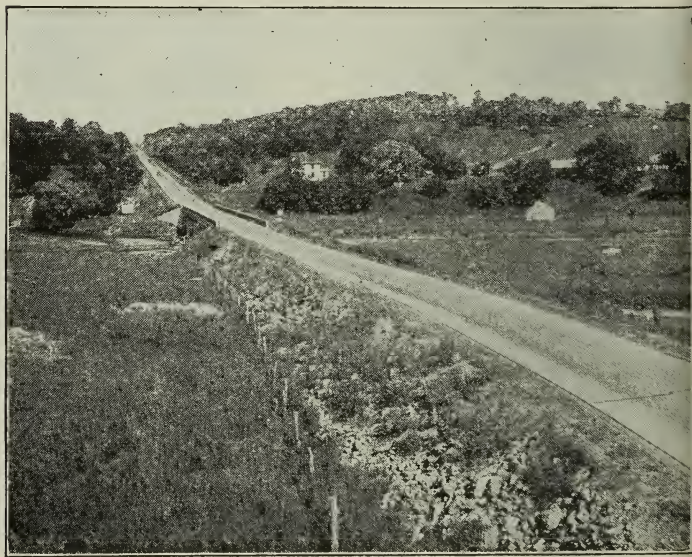


Fig. 10.—After construction: Bond Route 5, Section 30



Fig. 11.—Before construction: Bond Route 16, Section 5



Fig. 12.—After construction: Bond Route 16, Section 5

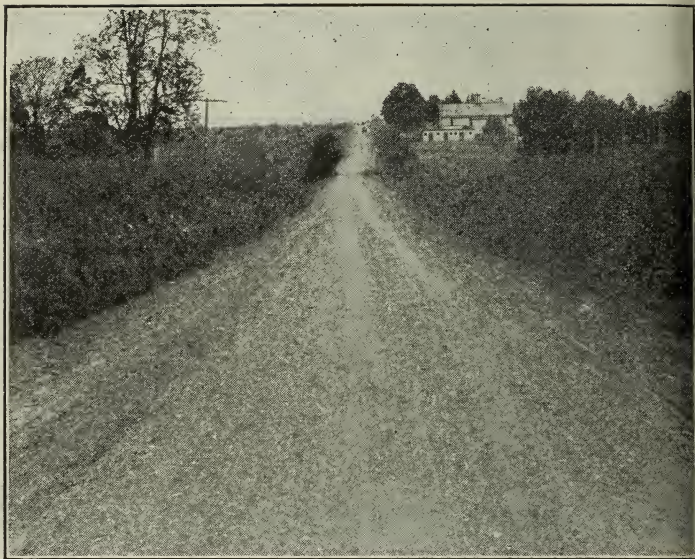


Fig. 13.—Before construction: Bond Route 36, Section 10



Fig. 14.—After construction: Bond Route 36, Section 10



Fig. 15.—Before construction: Bond Route 3, Section 28

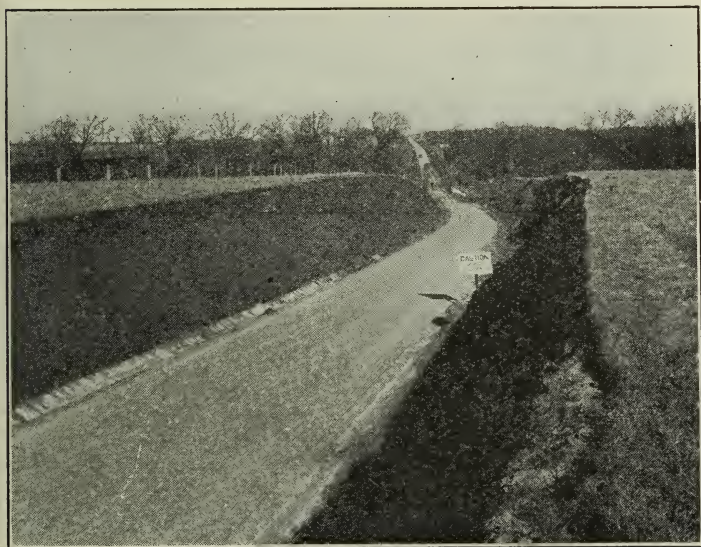


Fig. 16.—After construction: Bond Route 3, Section 28

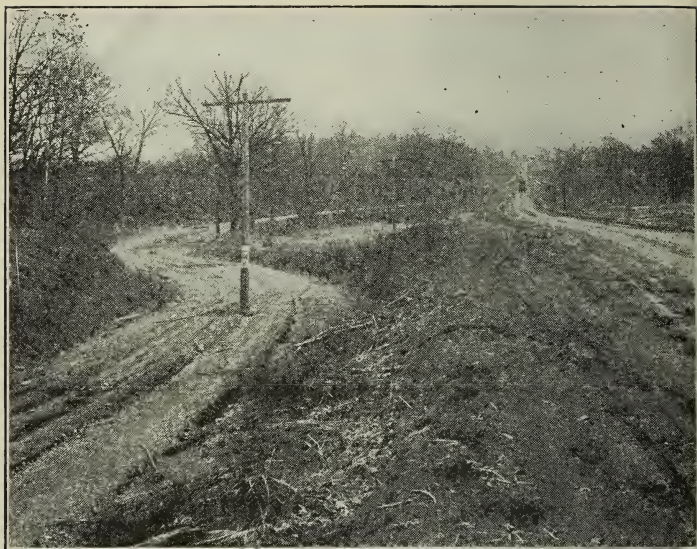


Fig. 17.—Before construction: Bond Route 33, Section 4

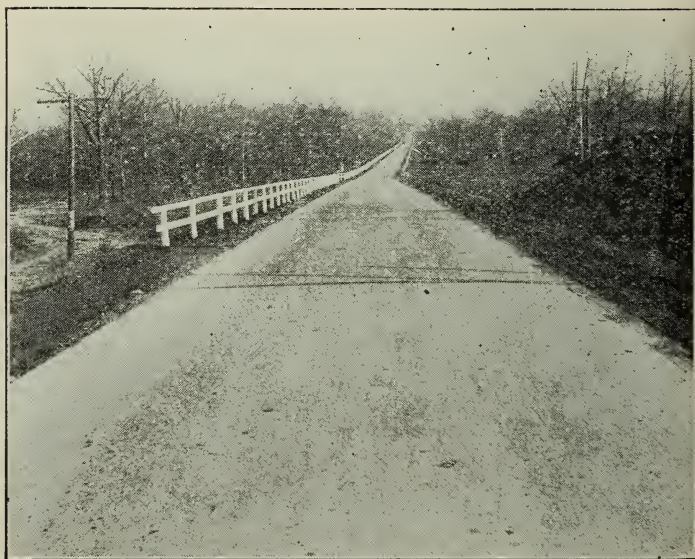


Fig. 18.—After construction: Bond Route 33, Section 4



Fig. 19.—Before construction: Route 22, Section 18



Fig. 20.—After construction: Route 22, Section 18

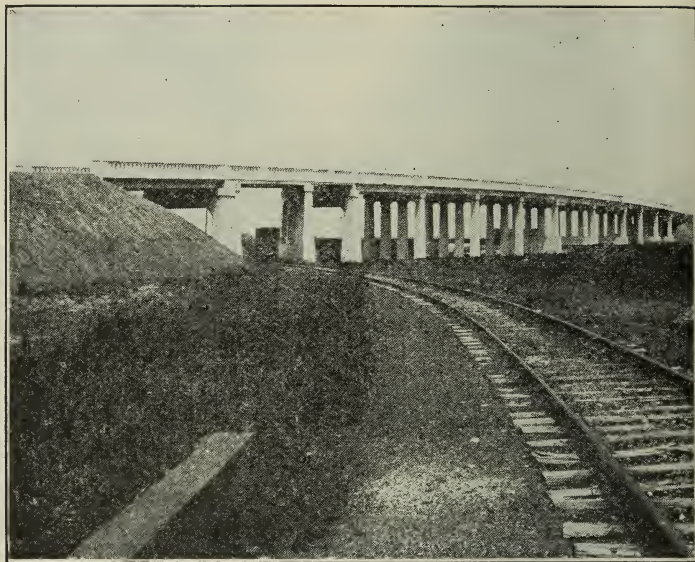


Fig. 21.—Viaduct over tracks of Baltimore & Ohio, Chicago & Eastern Illinois and Illinois Central Railroads at Tuscola



Fig. 22.—Bridge over Fox River at Yorkville



Fig. 23.—Bridge over Sangamon River at Petersburg

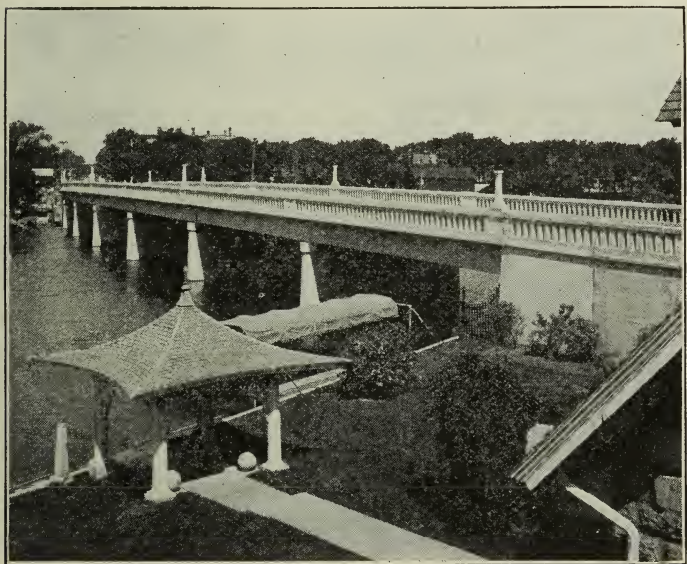


Fig. 24.—Bridge over Fox River at McHenry

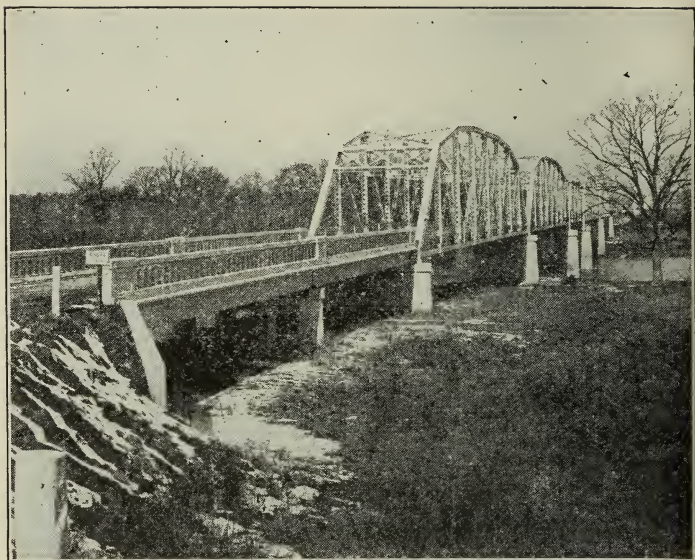


Fig. 25.—Bridge over Kaskaskia River at Evansville

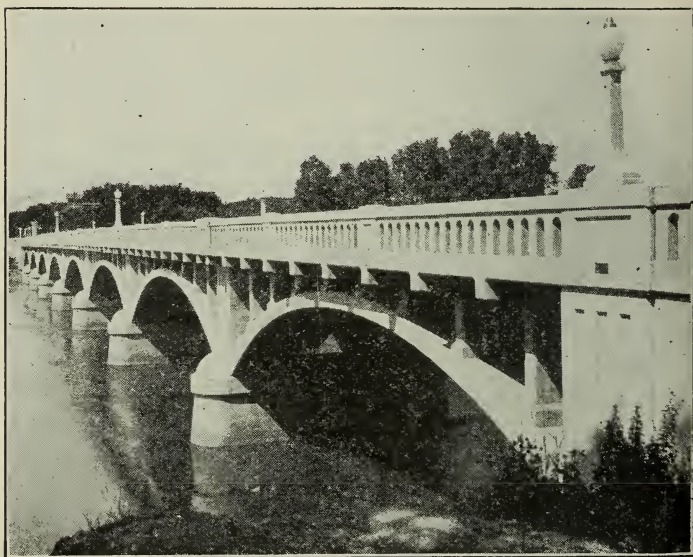


Fig. 26.—Bridge over Rock River at Rockton

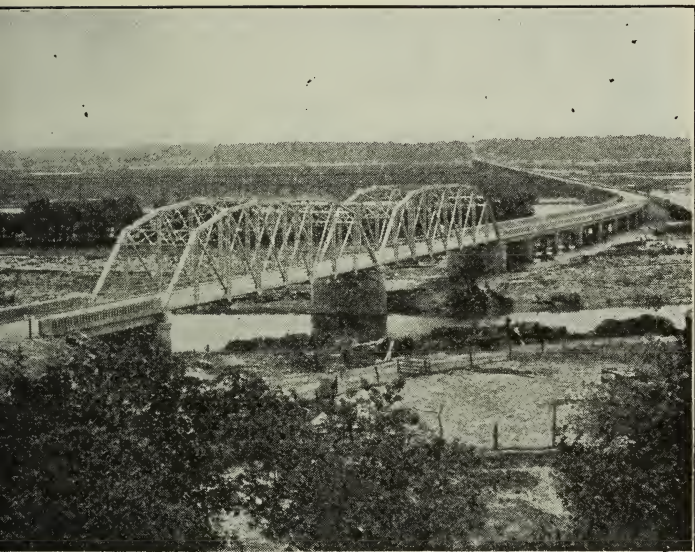


Fig. 27.—Bridge over Spoon River, near Blyton



Fig. 28.—Bond Route 17, West Station Street bridge over Kankakee River, Kankakee



Fig. 29.—Bond Route 17, East Court Street bridge over Kankakee River, east of Kankakee



Fig. 30.—Moving dirt with elevating grader and teams

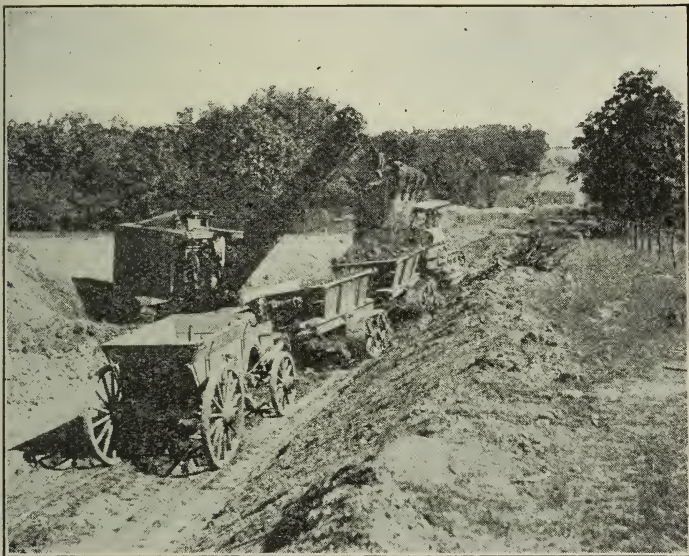


Fig. 31.—Moving dirt with steam shovel and crawler dump wagons



Fig. 32.—Setting forms for Portland cement concrete pavement.

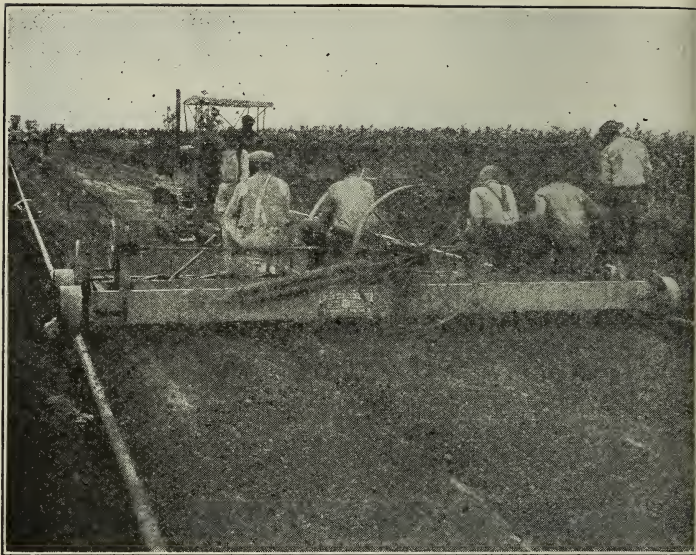


Fig. 33.—Subgrade machine cutting subgrade to proper depth and shape

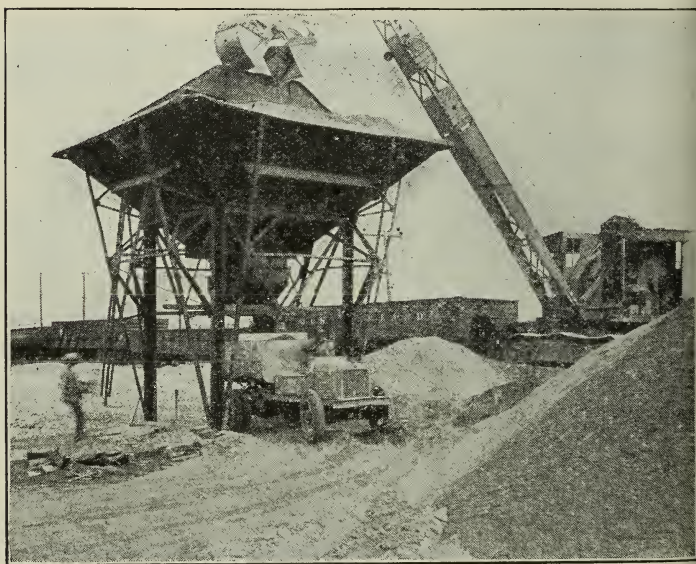


Fig. 34.—Proportioning and loading materials for Portland cement concrete pavement

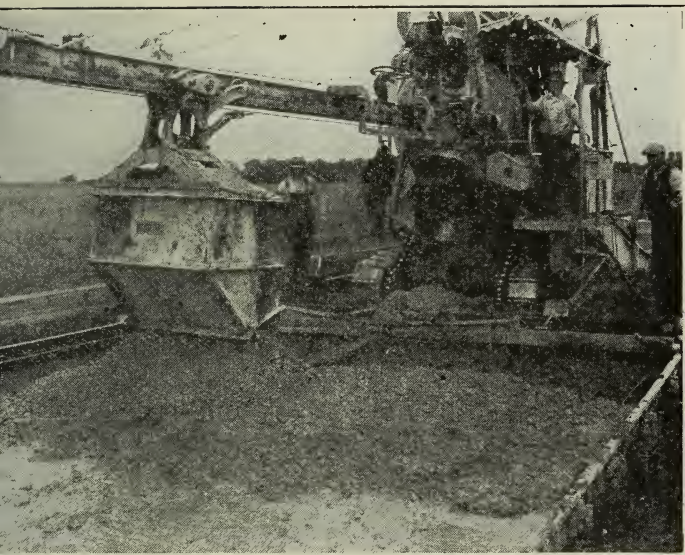


Fig. 35.—Concrete mixer in operation

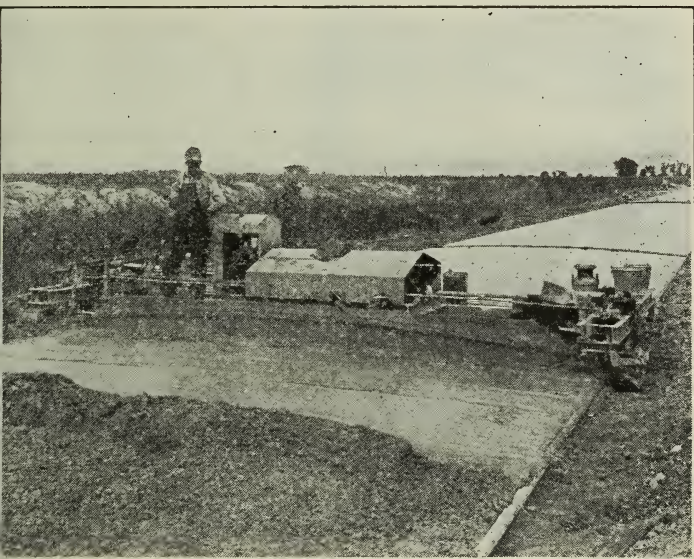


Fig. 36.—Mechanical finishing machine finishing surface of concrete pavement

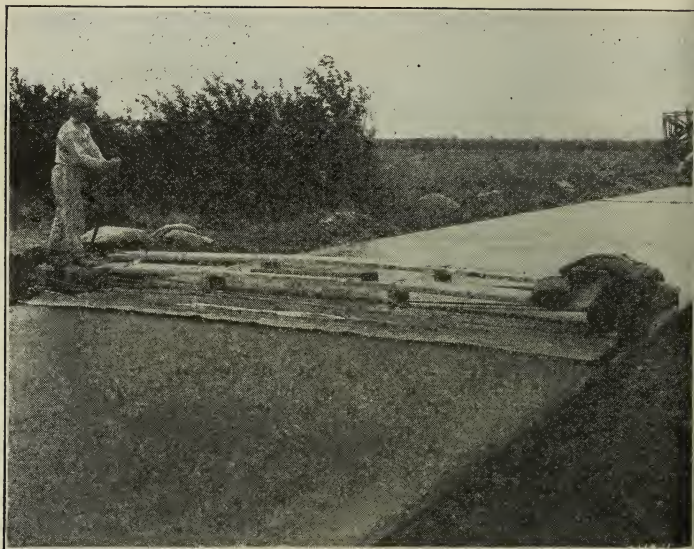


Fig. 37.—Final belting of surface of concrete pavement

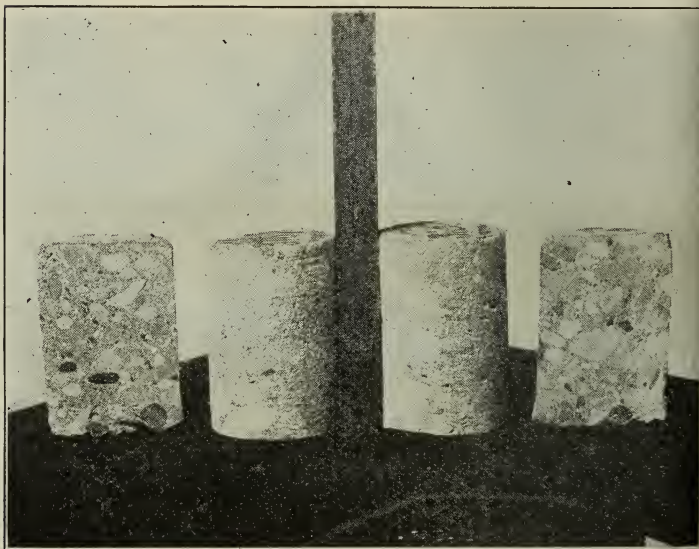


Fig. 38.—Typical cores taken from pavement for depth and strength determination

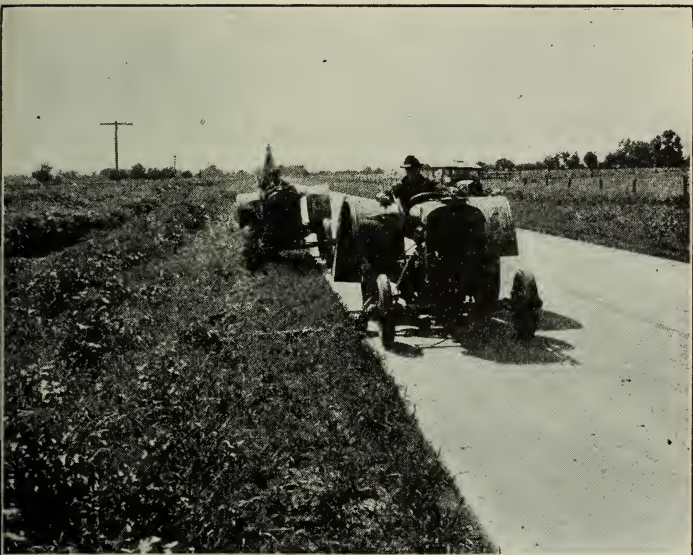


Fig. 39.—Mowing machine in operation

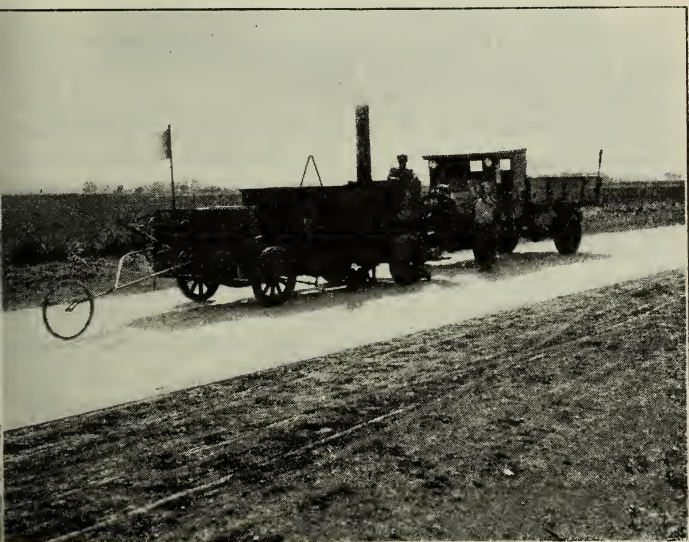


Fig. 40.—Machine for painting traffic lines on pavement

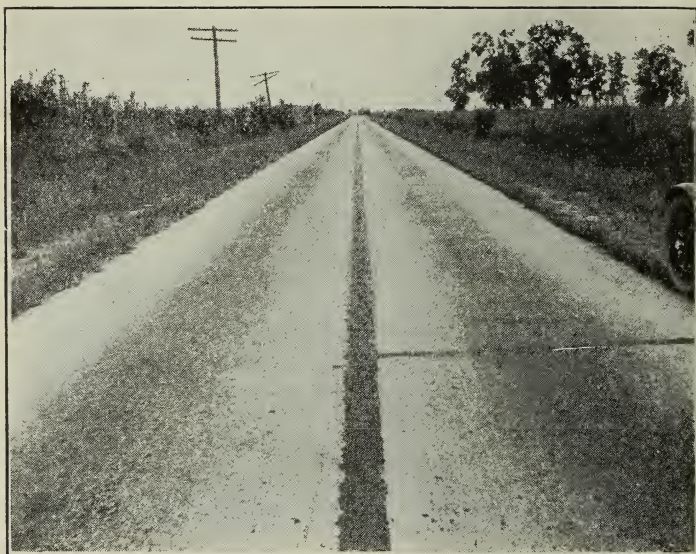


Fig. 41.—Complete traffic line

The Bates Experimental Road furnished data from which pavements can be designed scientifically, and, in addition, it showed conclusively that there need be little apprehension regarding the safety of the public investment in highways if the loads which come upon the pavements are properly controlled. Not only Illinois but every road-building state in the Union, as well as foreign countries, has benefited directly from the results of this test road. At the present time practically every state in the Union has modified its design practice to accord with the principles developed from this test.

During 1923 Illinois broke its 1922 record and established another world's record of 1,085 miles of hard-surfaced roads. Of this mileage, 876 miles were located on the State Bond Issue system. It is difficult to visualize the significance of the construction of 1,085 miles of pavement in a single construction season until this mileage



Fig. 42.—Federal and State road markers

is superimposed upon the map of the United States. If laid down as a continuous highway, this mileage would reach from Chicago to a point north of the Gulf of Mexico, 260 miles south of New Orleans; or it would reach from Chicago to a point in the Atlantic Ocean, 370 miles east of New York City; or, it would span four-tenths of the entire distance from the Atlantic to the Pacific oceans. Another important accomplishment during this year was the perfecting of a highway-marking system to guide the motorists, making it possible for the highway user to proceed into any part of the State without the disconcerting experience of being frequently lost.

1924 Banner Year

During 1924 Illinois again broke its record for highway construction by building a total of 1,230 miles of

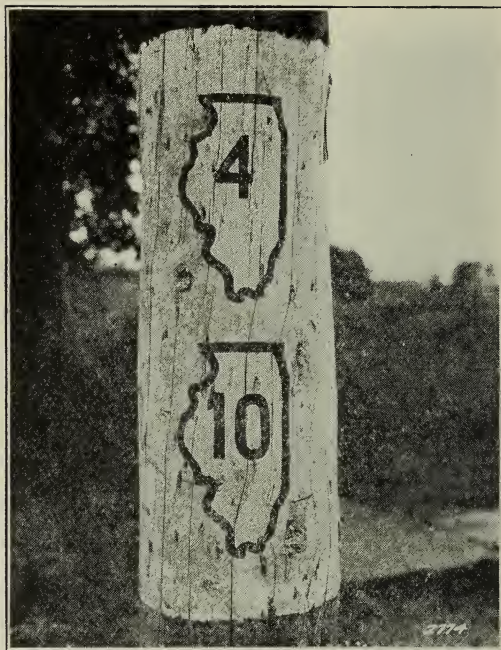


Fig. 43.—Telephone pole route marker

hard-surfaced roads. Of this mileage, 1,018 miles were located on the State Bond Issue System. This record for a single year's accomplishments has never been equaled by any state in the Union nor by any foreign country. Another world's record was established when 2,669 feet of 18-foot concrete pavement was completed in one day with one paving mixer. Construction attained a maximum rate of 63 miles per week, or approximately one mile of pavement per working hour. During this year the people of Illinois began to realize that their highway transportation facilities were being enlarged at a rate which was thought impossible a few years previous, and that they were literally being lifted out of the mud.

The rapid progress which had been made in highway construction up to and including 1924, necessitated the expenditure of highway funds at a very rapid rate. It

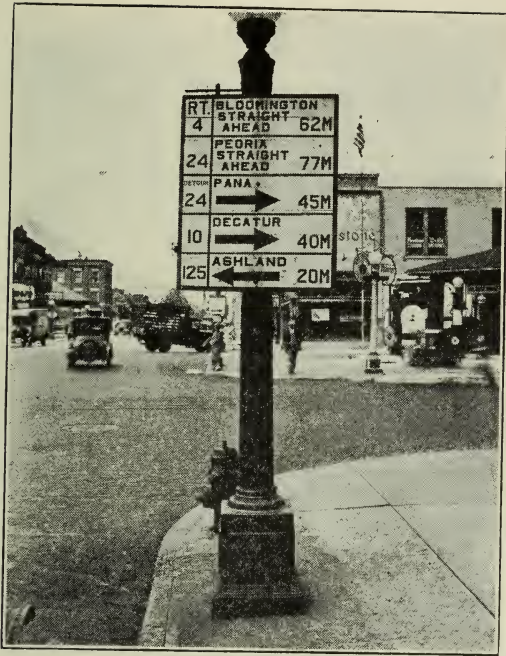


Fig. 44.—Direction sign used in cities

became evident that unless further means of financing were provided, the highway program of Illinois would have to be reduced materially. This led Governor Small to recommend to the Fifty-third General Assembly that a law be passed permitting the people of Illinois to vote in the general election in November, 1924, on the proposition of issuing additional State highway bonds amounting to \$100,000,000, the principal and interest on the same to be paid by motor license fees without direct taxation. The purpose of these bonds was to complete the original \$60,000,000 State Bond Issue System and enlarge it by adding approximately 3,000 miles of additional roads. This recommendation was received favorably by the Fifty-third General Assembly and a law was passed providing for a carefully thought-out system of additional highways. But the General Assembly in its wisdom pro-

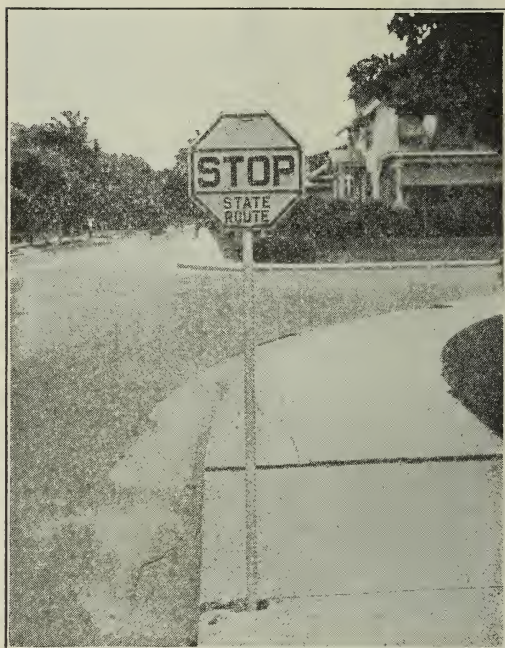


Fig. 45.—Stop sign used inside cities at street intersections with State highways

vided 5,100 miles of new roads instead of the 3,000 miles recommended by the Governor without providing the funds necessary to construct the additional mileage. The proposition was voted on by the people at the November, 1924, election and approved by an overwhelming majority, thereby providing the necessary funds to proceed rapidly with the highway construction program up to the 3,000 miles originally recommended.

During 1925 there was a decrease in the production of completed hard-surfaced roads as compared with the accomplishments of 1924. This decrease was caused by difficulties encountered in placing under contract the uncompleted portions of the \$60,000,000 Bond Issue system. The \$100,000,000 Bond Issue law provided that unless

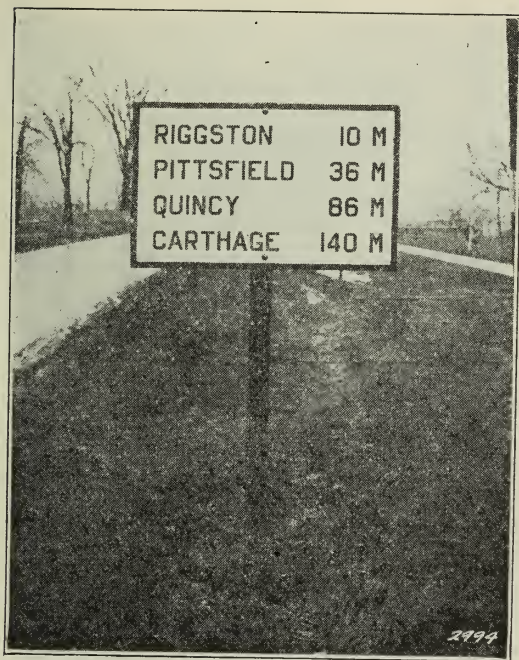


Fig. 46.—Marker showing cities along route and mileage thereto

engineering problems made it clearly impractical, all contracts for the complete construction of the roads to be constructed along and upon Routes 1 to 46 inclusive, should first be awarded before any construction contracts were awarded for the roads along and upon Routes 47 to 185, inclusive, the latter routes having been provided by the new Bond Issue law. A large number of location problems arose in connection with the uncompleted portions of Routes 1 to 46, many of which were taken into the Courts on the question of the right of the Department of Public Works and Buildings to locate new roads. Supreme Court decisions were necessary, and, in the meantime, no new work could be started. In spite of this, however, a total of 906 miles of hard-surfaced roads were completed during 1925, 787 miles of which were on the State Bond Issue system.

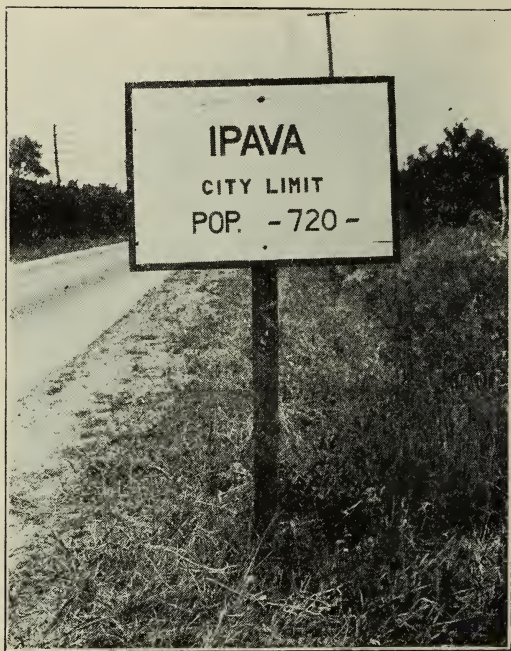


Fig. 47.—City limits marker

Legal Difficulties Encountered

The legal difficulties encountered in the completing of the \$60,000,000 Bond Issue system continued into 1926, and it was not until January 1, 1927, that all of the uncompleted portions of the system which did not involve engineering difficulties were placed under contract. During the year 1926, a total of 464 miles of hard-surfaced roads were completed, of which 362 miles were on the State Bond Issue system. The question of the further financing of the road construction program again arose in connection with the additional roads provided in the \$100,000,000 Bond Issue Law for which funds for construction had not been provided. Governor Small recommended to the Fifty-fifth General Assembly that further funds be provided by means of a gasoline tax. He felt



Fig. 48.—Junction sign placed at intersecting routes

that the people of Illinois were entitled to the early completion of the additional road system for which they voted in 1924 and that the use of the completed system ten years earlier than would otherwise be possible would be of incalculable benefit to the people of the State, both from an economic and social standpoint. The bill as it was presented to the Legislature provided a tax of 2 cents per gallon on motor vehicle gasoline, and in this form met considerable opposition. As a compromised measure, it was amended to provide that one-half of the revenue go to the State for the purpose of completing the State Bond Issue System and the other half to the counties to be expended upon their State aid system. This amended bill was passed by the Legislature, and was placed in operation during the year 1927. The constitutionality of the law was attacked, and early in 1928 the

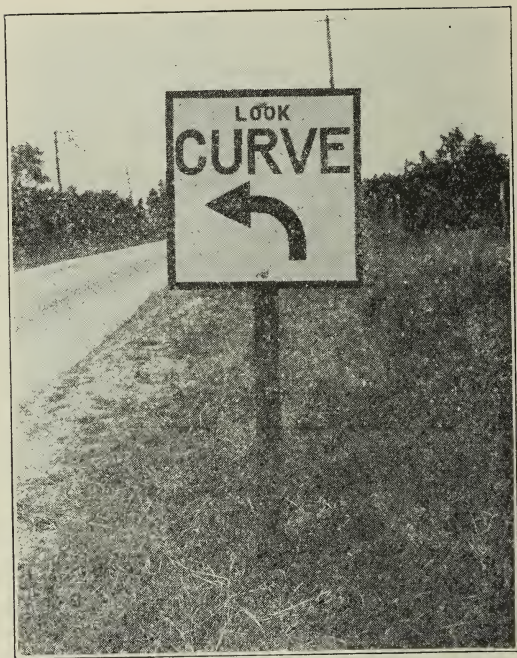


Fig. 49.—Warning sign indicating turn in highway

Supreme Court rendered a decision declaring it unconstitutional on the basis of certain legal technicalities. Thus the Governor's efforts to make possible the uninterrupted continuance of the highway program were unsuccessful, and, at this writing, it is certain that unless further steps are taken to provide additional funds, the highway construction program will be reduced to a small mileage at the end of the year 1928 or shortly thereafter.

1928 Program Nearing Completion

During 1927 the first contracts were let on the \$100,000,000 Bond Issue System. It was not possible, however, to complete a large program during this year for the reason that only a small amount of work was under contract at the start of the season. In order to complete a 1,000-mile program or more during one con-



Fig. 50.—Stop sign placed at intersections of country highways with State roads

struction season, it is necessary that at least one-half of this mileage be under contract at the beginning of the season. Since no new contracts could be let during 1926, this could not be done, and, as a result, only 656 miles of hard-surfaced roads were completed, 521 of which were on the State Bond Issue system. During 1927, however, an intensive drive was made to place enough work under contract to insure the completion of 1,200 miles during 1928. On July 1, 1928, the date of this writing, there was a total of 1,026 miles of pavement under contract on the State Bond Issue System alone. The construction work is proceeding at a rapid rate, additional new contracts are being awarded, and the prospects for completing the program outlined at the beginning of the season are exceedingly bright.

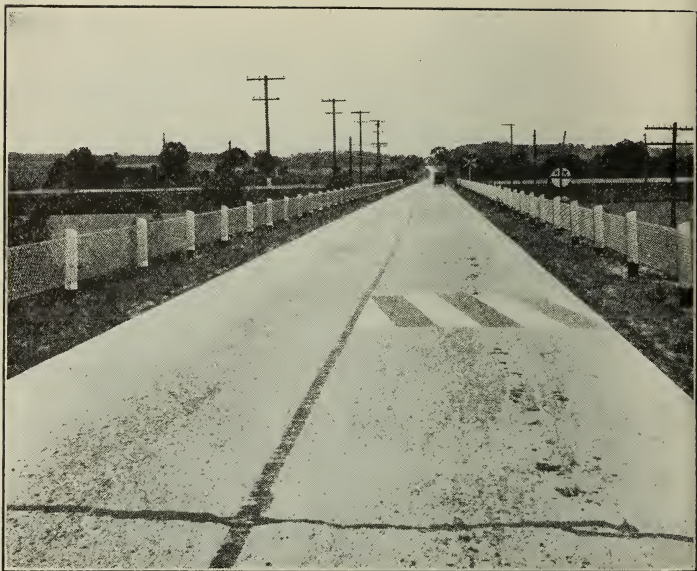


Fig. 51.—Typical signs used at railroad grade crossings

The pavement completed on the State Bond Issue System from January 1, 1921, when Governor Small took office, to July 1, 1928, is shown on the maps included in Figures 1 and 2. These maps make it easy to visualize the road construction accomplishments during Governor Small's administration. During the interval from January 1, 1921 to July 1, 1928, there has been completed 5,793 miles of hard-surfaced pavement, including that constructed directly by the State on the State Bond Issue System and by the counties under State supervision. There have also been completed 1,539 miles of separate grading and 1,320 separate drainage structures. Figure 3 is a chart showing the mileage of hard-surfaced pavement built each year from 1914 to 1927, inclusive. This chart shows that the total mileage of hard-surfaced roads constructed in Illinois during the past 14 years is 6,689 miles; that of this total, 82 per cent has been completed during the past 7 years; and, that $4\frac{1}{2}$ times as many miles

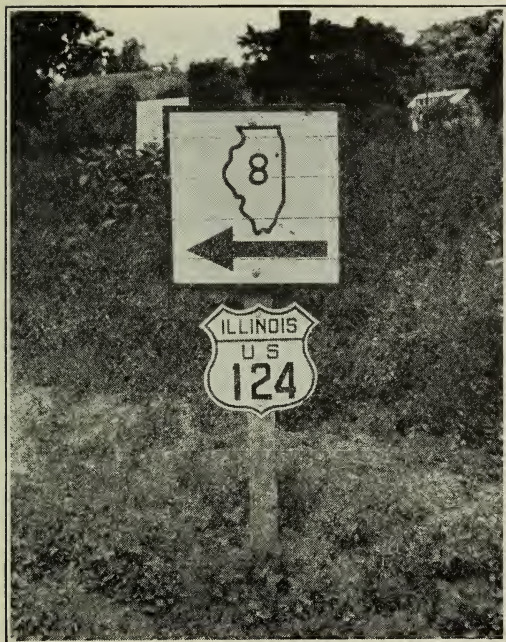


Fig. 52.—Typical direction sign, U. S. marker also shown

of hard-surfaced roads have been completed during the administration of Governor Len Small as were completed in the previous 7 years. This comparison, of course, does not include the mileage which has been completed during 1928 up to July 1, and that which will be completed before the end of the construction season.

Figures 4 to 53, inclusive, show typical views of completed work and various phases of highway construction activities.

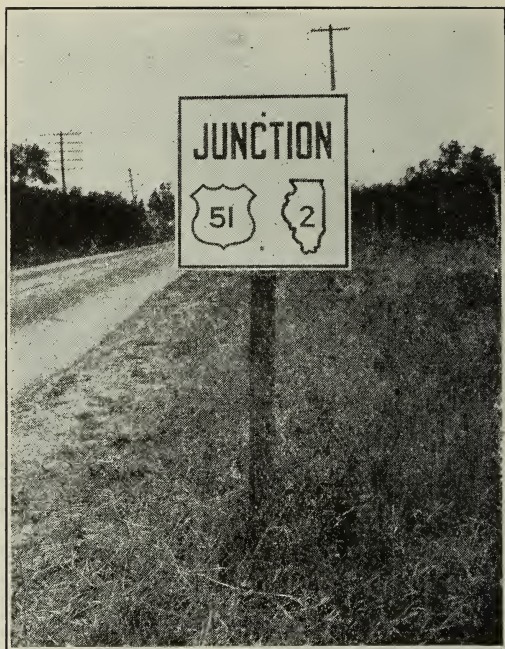


Fig. 53.—Standard U. S. route and State route junction sign

DIVISION OF PARKS

JOHN BOYLE, *Superintendent of Parks*

Illinois is developing a comprehensive system of State parks. The movement had its beginning within the last decade. Until a few years ago the parks owned by the State were administered by a commission which scattered its efforts. The supervision of parks is now in the hands of the Department of Public Works and Buildings. Governor Small, ever mindful of the interests of the citizens of the State and ever an ardent advocate of public parks, early in his administration requested the Department to map out a progressive program of park development.

The Illinois plan has as its end the improvement or reclamation of every important spot in the State that is



The beautiful Sangamon River at Old Salem State Park
near Petersburg

hallowed by historic memories. Many such places have already been taken over by the State and no effort is being spared to preserve them in their original grandeur.

The rapid extension of the State's hard road system is making the State parks more popular year by year, giving opportunity as it does to citizens in every section of the State to visit the different scenes of historic interest. Because of this fact, improvement work on the different parks is being pushed as rapidly as possible, and special arrangements are being made at all points for the convenience of tourists, especially those who make the trip by motor.

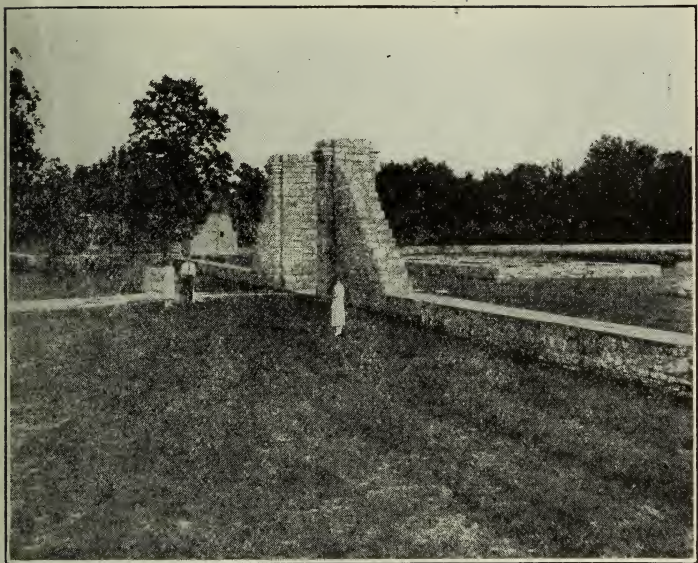
The most ambitious undertaking is at Starved Rock State Park, situated on the south shore of the Illinois River midway between Utica and LaSalle, only 98 miles southwest of Chicago. This historic spot, a revelation in beautiful hills, immense rocks and canyons, the mecca of romance and legendry, visited by thousands of motorists annually, is conceded to be the beauty spot of Illinois.



Modern tourists' rest and shelter house, Starved Rock State Park

Here the State has made the tourist camp the model one of the country. A shelter house has been built with all of the comforts of home. It has showers with hot and cold water, the hot water being a departure from the conditions at most camping grounds. The shelter house also has tubs for washing clothes and sanitary toilets. One hundred lunch tables and 200 benches have been placed about the park. There are already at the grounds sufficient camp stoves to care for the tourists, and parking space has been arranged for at least 5,000 automobiles. Artesian wells 700 feet deep afford an unlimited supply of cold drinking water.

This auto tourist camp grounds is tendered the public as an experiment in human welfare and is an adjunct to the good roads program of Governor Small. Excellent hotel service is found at Starved Rock State Park for those who prefer not to camp. It may be interesting to note that the receipts from the concessions at Starved



Partially reconstructed walls at Fort Chartres State Park
Prairie du Rocher

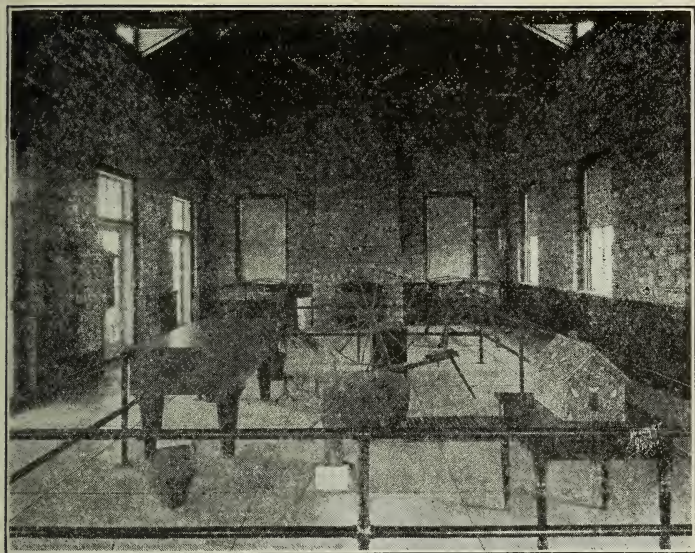
Rock Park approximately equal the cost of maintenance. The glory of Starved Rock both as a playground and an historical school room still continues.

The Lincoln Homestead, the only residence ever owned by Abraham Lincoln and the one occupied by him at the time of his nomination and election to the presidency, is situated at the northeast corner of Eighth and Jackson Streets, Springfield. It is a two story wooden house of twelve rooms and was built in 1839. The most noticeable feature of its construction from the builder's point of view is the prodigal use of solid walnut and strict economy in the use of iron—wooden pegs being used wherever practicable in lieu of the customary nail. No changes have been made in the house since Mr. Lincoln left it except the repairs made necessary by decay.

Here Lincoln grew up from the small figure of a country lawyer to the full stature of a party idol and the grand proportions of a national leader. Here were



The Black Hawk Statue, 55 feet in height, in Ogle County, on the east bank of the Rock River



Interior of Stone Museum housing mementos of Abraham Lincoln, Old Salem State Park

nurtured his early-born ambitions and here his greatest political aspiration was realized. Here he closed his career as a citizen of Illinois and took up the work to which he gave his life that "the government of the people, by the people and for the people might not perish from the earth."

In 1923 fifty feet of ground to the north of the Homestead was purchased and the dwelling thereon removed. This action by the administration, the running of all electric wires in conduit, and the heating of the home by city heat, practically eliminate all fire hazards.

Old Salem Park near Petersburg, the home of Lincoln during his younger days, is to be one of the most attractive and interesting spots in the State after the present plans of the Department are completed. As an immediate step the old Onstott cabin, one of the houses which stood in Salem when Lincoln lived there, has been removed from Petersburg to its original site in Old Salem.



Scene in Black Hawk Watch Tower Park, above Rock River
near Rock Island

It was taken down and each log numbered and the logs replaced so that the house stands as it was originally. From time to time other log cabins will be restored and it is hoped ere long the entire city will be known exactly as it was during the time of Lincoln's residence at that point in 1831. When this work has been finished, it will be the only known city in the world that has been restored in its entirety. Research work has brought to view the depressions along these forgotten streets by the foundations of the then existing buildings, also the almost obliterated road leading out of the village to Springfield and the path from Offut's store where Lincoln clerked, down to the grist mill where he was wont to officiate. Unless one makes a pilgrimage to this spot, he will never know our greatest countryman—Abraham Lincoln. Here he passed from raw untutored youth to strong intellectual manhood.

A custodian's cottage and relic house was dedicated on May 19, 1921, by Governor Small in the presence of

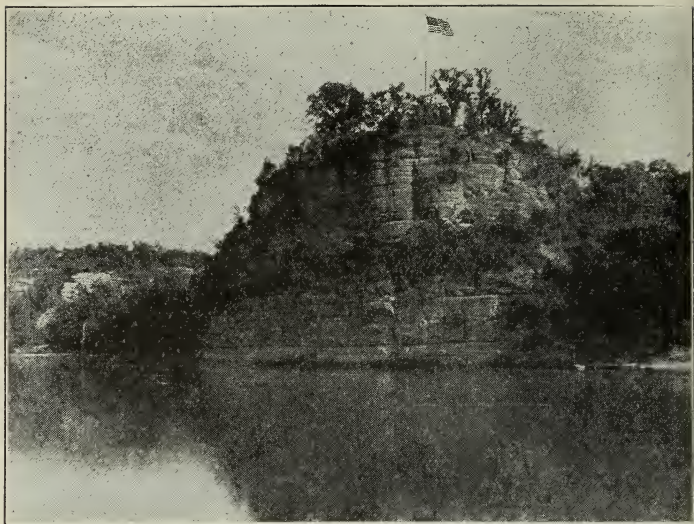


Offut store, scene of Lincoln-Armstrong wrestling match, Old Salem State Park

5,000 visitors. This building was constructed in harmony with the type of those days. It is of fire proof construction and houses the relics and mementos of Old Salem.

An appropriation was made by the 54th General Assembly to purchase 19 acres adjoining the park. This new addition contains the site of the original schoolhouse and the graveyard of the village. This will make the original tract complete.

The official transfer of the Old Metamora Court House to the State of Illinois, to be preserved for ages as a Lincoln Memorial Museum, was celebrated on August 26, 1921. There were times when Abraham Lincoln, Adlai Stevenson, Judge David Davis and Robert G. Ingersoll met under this roof. No one would have believed at that time that, within the walls of that unpretentious structure, there were assembled a future President, Vice President, a future Judge of the highest judicial body in the world and the greatest orator of his age.



Beautiful Starved Rock on the Illinois River, Starved Rock State Park

To preserve the old court house at Metamora will help to preserve the fame and names of the great and distinguished men associated with it, and Governor Small ruled well when he arranged to make "Old Metamora" one of the Memorials of our State, that the associations connected with it might be an inspiration for future generations.

The State in 1925 purchased the Great Cahokia Mound and its important neighboring mounds, located in Madison and St. Clair counties. The age of these mounds is a matter of conjecture only. Articles found in the mounds by Professor Warren K. Moorhead, show that they were built by a race of people who had reached a rather advanced stage of civilization and whose members must have been counted by the thousand. It is estimated that it would have taken 1,000 men five years to build Monks Mound alone. This acquisition will preserve for the world the most important work left by a pre-historic race on the American continent. Monks

Mound, the largest pre-historical, artificial earth work in the United States, is to the Mound Builders whose history antedates that of the Indians, what the great Pyramids were to the Pharaohs of Egypt.

Cahokia Mounds have stood for many centuries like solemn, imposing monarchs. Though many trains now go rambling across the valley and over the great bridges spanning the Father of Waters, these monsters remain as mute witnesses of a people that have long since passed away. They keep within their depth the mystery which no one has yet fathomed.

During the past biennium three new park areas have been added to the State recreation grounds. One is Black Hawk Watch Tower Park in Rock Island County, a second in Ogle County, known as the White Pine Forests and the third, Giant City Park, in Union and Jackson counties.

The White Pine Tree tract lies in Ogle County, nine miles from Oregon and seven miles from Polo. It is bounded on the south by the Chicago and Iowa Trail and on the east by the highway leading to Mt. Morris, five miles to the north. To the west and southwest, the tract reaches out irregularly toward the little village of Stratford. A report by R. S. Kellog, of the United States Forest Service, some years ago, made the following recommendation:

"The tract should be made into a State forest reserve since it is the only White Pine grove in the State and shows excellent prospects of enlarging itself by natural seeding—in time, perhaps, overrunning the greater part of the tract. The natural beauties are exceptional. Natural conditions are favorable to good tree growth. The present forest is young, and evidently very few of the trees in it are over 75 years old. In a rather hurried survey the following species were noted: red oak, white oak, burr oak, scarlet oak, chinquapin oak, white elm, slippery elm, large-tooth aspen, quaking aspen, sugar maple, box elder, hornbeam, hop hornbeam, red mul-

berry, black walnut, butternut, shagbark hickory, pignut hickory, mocker-nut sycamore, white ash, black ash, choke cherry, black cherry, wild plum, basswood, hop tree, black willow, Juneberry, white pine, red cedar.

"The interesting feature of the proposed reserve is the small forest of white pine, which is unique for Illinois and represents the southernmost extension of the species in this section of the United States. (This does not take into consideration the scattered groups of white pines in Starved Rock Park.) The maximum height of the pine is 90 feet and the largest diameter, breast high, about 30 inches. A long distance in the tract from the nearest pine tree one finds patches of young pine so dense as to be almost impenetrable, while smaller numbers and individual young trees are scattered about everywhere."

In October the brilliant colors of the hardwoods (which are intermixed with the evergreens) mingled with the soft, rich green of the white pines and the young growth make a picture of entrancing loveliness. Here is a combination of attractions not found at any other place in Illinois.

Giant City Park, located in Union and Jackson counties, comprises some 900 acres. It is called "The Switzerland of Southern Illinois" and scenically it is all of that. We think of Illinois as the Prairie State, with level plains and gently rolling hills, yet we have in Southern Illinois the foothills of the Ozarks where that romantic range extends across the Mississippi from Missouri.

Perhaps no where else, save in the mountainous countries (certainly no where else in Illinois), is there any such peculiar and attractive natural formation of bluffs and chasms as this section contains. Here by some strange action of the elements, countless ages past, huge blocks of stone were cast off from the natural formation and stand like buildings in the downtown section of a city. Between these cubical stone blocks, canyons, like city streets, extend in both directions. Weird formations entrance the visitor.

There are springs of clear water and cascades, from which freshets send copious streams down from the heights to seek the river by winding water-courses.

The vegetation is in keeping with the variation of the contour. Trees of great girth and height are found here. In the deep ravines and street-like chasms, ferns and wild flowers grow in wild profusion.

Black Hawk Watch Tower Park, 200 acres in extent, situated in Rock Island county, is of great historical interest. It is the place of birth and the burial ground of the Indian Chief, Black Hawk, and his headquarters and stronghold during the ineffectual warfare waged by him on the encroaching whites.

This tract has an unbroken ridge or backbone extending from Carbon Cliff to Black Hawk Watch Tower, the last being its most charming natural feature. That it has long been a favorite spot is proven by the numerous mounds built by prehistoric people and by fragments of pottery, chipped flints, arrowheads and implements of stone found scattered about this ridge.

"This Tower to which my name has been applied, was a favorite resort and was frequently visited by me alone, when I could sit and smoke my pipe and look with wonder and pleasure at the grand scenes that were presented by the sun's rays, even across the mighty water." (Black Hawk's Autobiography.)

An appropriation was made by the 55th General Assembly for the purchase of the home of Pierre Menard at Fort Gage in Randolph county, together with certain furnishings. This home was erected about the year 1800. Here he died in 1844.

Pierre Menard was a member and the presiding officer of the territorial legislature. In 1818 he was elected as the first lieutenant governor of this State.

All parks and memorials are under the direct supervision of the Division of Parks, a sub-division of the Department of Public Works and Buildings.

Department of Public Welfare

ROY W. IDE, *Director*

DURING THE ADMINISTRATION of Governor Len Small the Department of Public Welfare has made extensive progress, taking its place among the foremost states in welfare work, to the end that the State's unfortunate wards are now receiving the finest possible care and protection. Illinois charity has become a definite, constructive organization for social welfare, and an important factor in world progress, through this Department.

More than 35,400 human beings, in Illinois' 26 penal, charitable and correctional institutions, are receiving State care. A thousand buildings are used in this great work, and 6,000 employees are engaged in maintaining the highest standards possible in caring for institutional inmates. There are nine hospitals for the insane, located at Elgin, Kankakee, Jacksonville, Anna, East Moline, Peoria, Chester, Chicago and Alton. At Lincoln and Dixon, hospitals are maintained for treatment of the feeble-minded and epileptics. In the penal group of institutions are penitentiaries at Joliet (two, one for men and one for women), Stateville and Menard; a reformatory at Pontiac; State Farm at Vandalia; State Training School for Girls at Geneva, and School for Boys at St. Charles. At Jacksonville are the now famous schools for the deaf and the blind. The Industrial Home for the Blind is in Chicago, the Soldiers' and Sailors' Home is located at Quincy, and the Soldiers' Widows' home in Wilmington. Soldiers' orphans are well provided for at Normal, and the Eye and Ear Infirmary and the Research and Educational hospitals are in Chicago.

Under the Director a criminologist, an alienist, a

fiscal supervisor, superintendents of prisons and charities and a supervisor of paroles function. A citizen board of welfare commissioners also plays an important part in the work of the Department. Other branches of effort include the State Psycopathic Institute in Chicago, the Institute for Juvenile Research in Chicago, the Division of Visitation of Adult Blind and the Division of Visitation of Children.

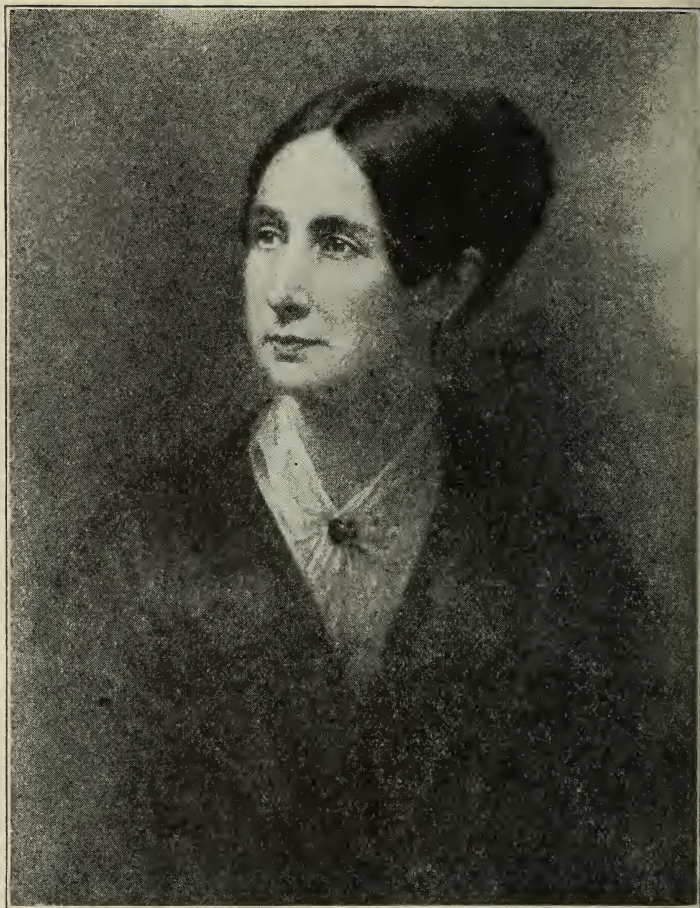
Adequate Buildings

Perhaps the most important progress made in the development of the Department's work during the administration of Governor Small has been the marvelous building program that is nearing completion. For the first time in nearly a decade it can now be said that every state ward is adequately provided for as to living quarters, and that each institution has enough buildings to carry on its work properly, *notwithstanding the more than 31 per cent increase in the number of inmates and patients during the 7-year period.*

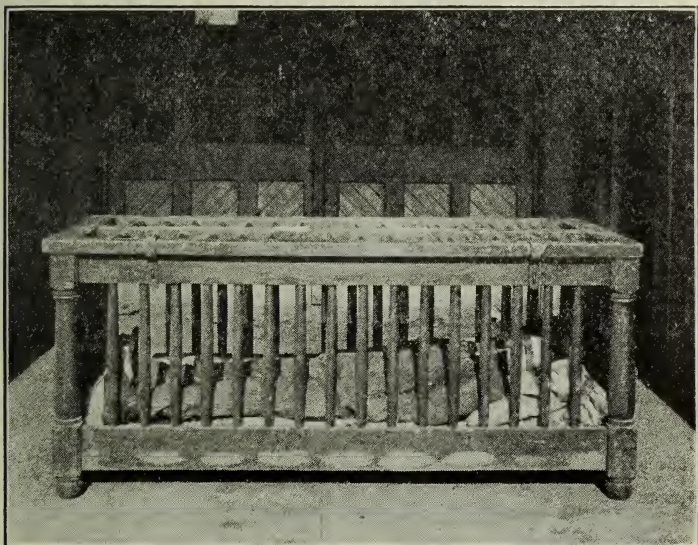
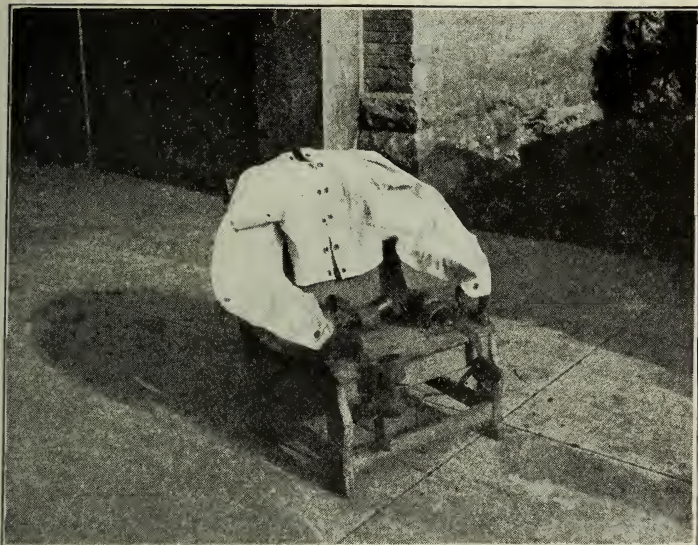
The State's new institutional buildings are not only adequate in number and in size but they equal those of any part of the world in point of equipment, personnel and standards of operation.

On July 1, 1920, there were 26,090 patients and inmates of State institutions, with 17,098 listed as insane. There were 15,956 men and 10,134 women in this total, with 3,750 employees included in the personnel. On the same day in 1928 a total of 35,445 persons were under State care, 21,242 of them insane, with 22,256 males and 13,189 females listed. The number of employees had increased in similar proportion to 5,211.

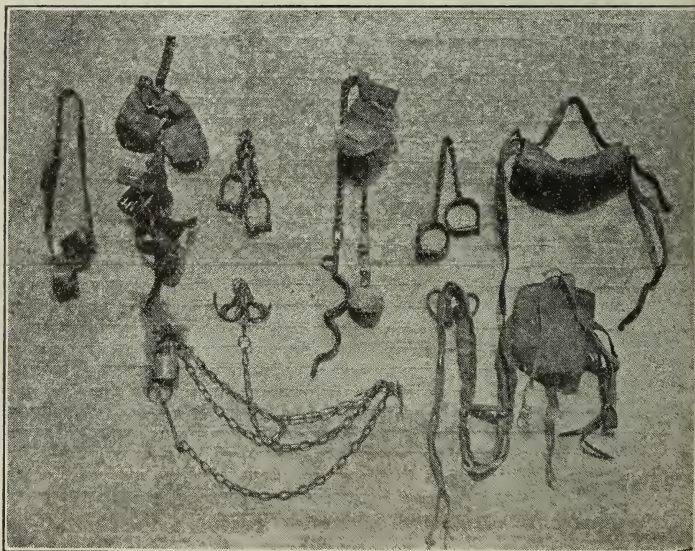
The crowded conditions in 1920 were due chiefly to the lack of attention given to housing conditions during and immediately following the World War. Building was forgotten in the rush of war days to lend aid to the Federal government in the form of man and woman power and money. The institutions were made a secondary consideration to national security. But at the same time institutional population grew at a normal rate.



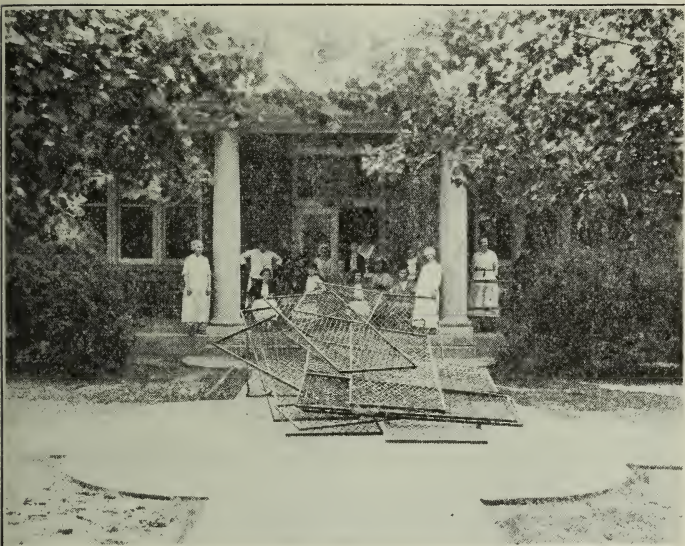
**Dorothea Dix, the founder of Illinois' first hospital for
mental cases**



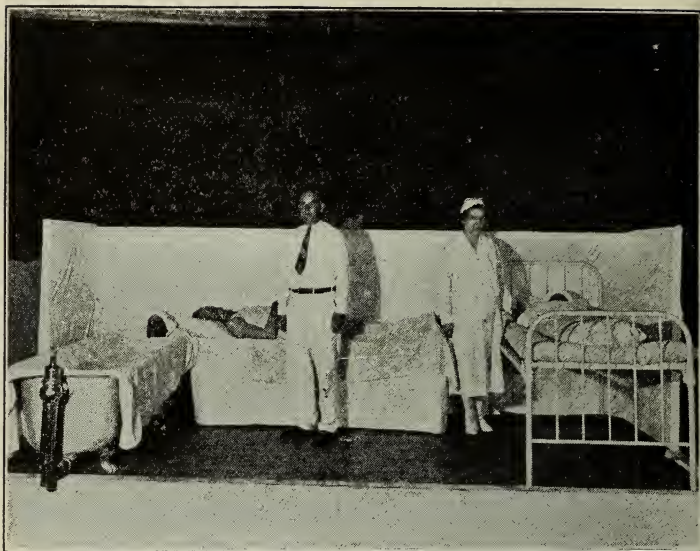
Above, the strong chair and strait jacket; below, the Utica crib
once used in caring for the insane



Above, the old type of institutional garment; below, iron restraints used to confine the mentally ill



Above, discarded bars of Illinois insane hospitals; below, new type of building for institutional use



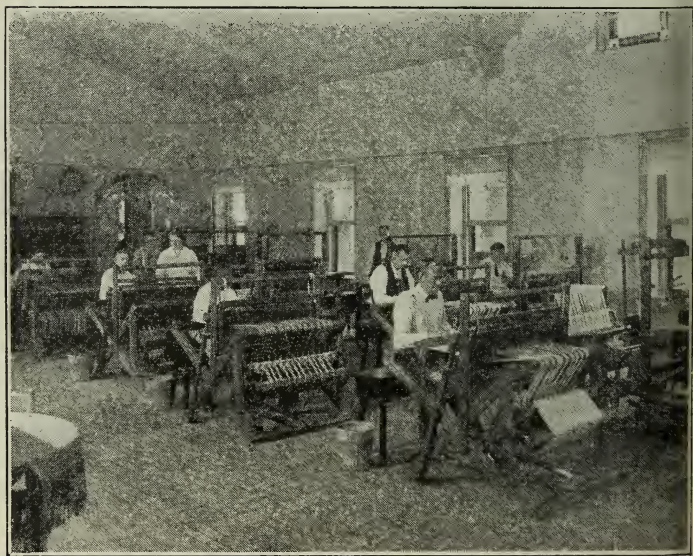
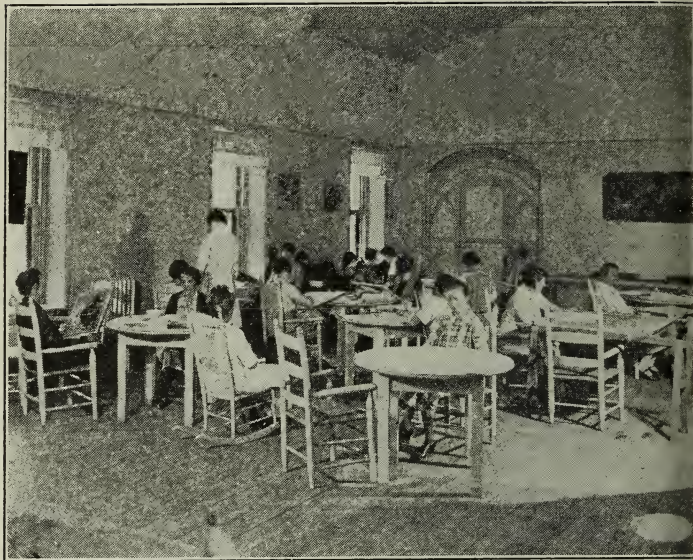
Above, hydrotherapy used in mental hospitals; below, new type of garments for patients



New methods of care for the insane include occupational therapy. This illustrates the therapist working with a patient in the habit training class where the value of personal neatness is taught

Rehabilitation of Institutions

Following the war closely came the urgent need for proper care of Illinois' sons and daughters who suffered from the effects of modern battle. Shell shock, gas, maiming, wounds and other things had left their imprint



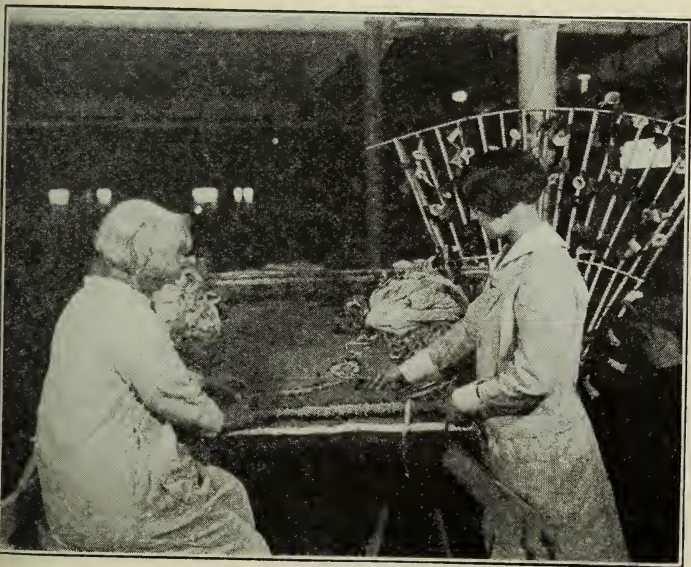
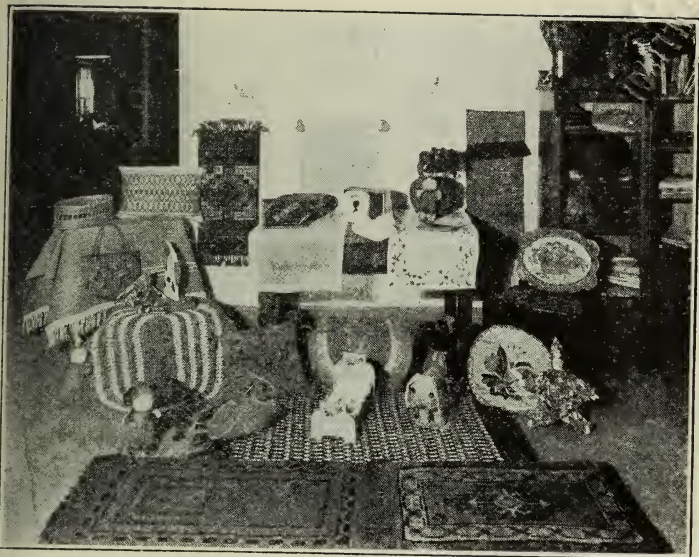
Classes in occupational therapy



Above, toy making; below, basket weaving; both classes in occupational therapy



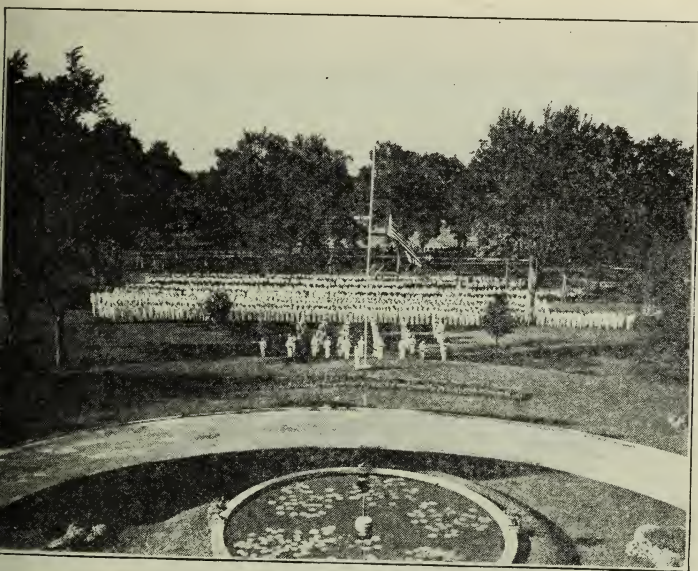
A normal homelike atmosphere is maintained for the women patients



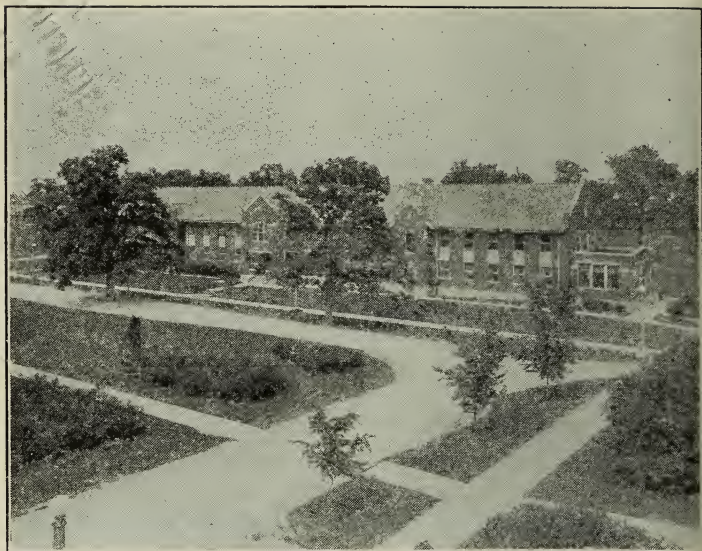
Work produced by patients in the occupational therapy classes



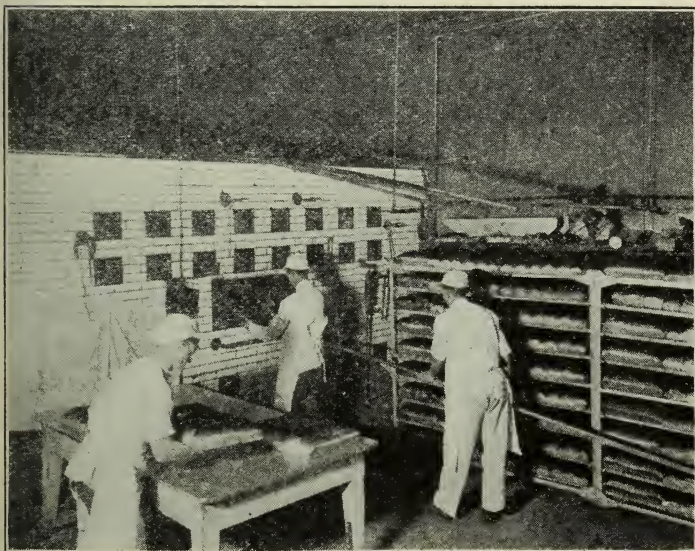
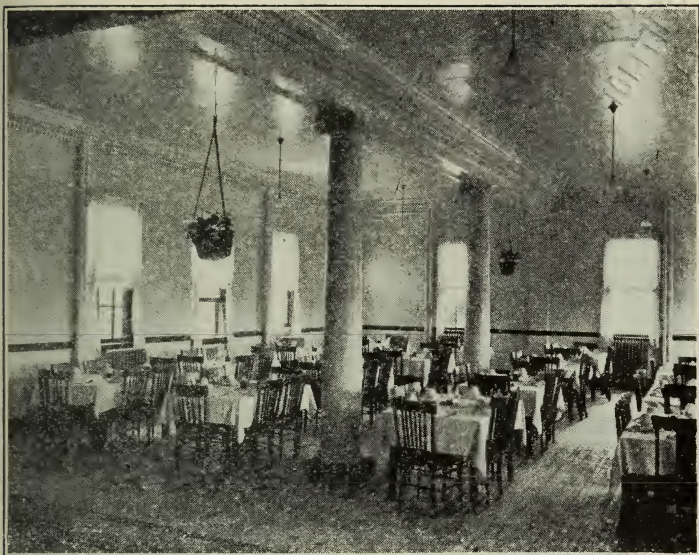
Above, the Jacksonville State Hospital band; below, an institutional beauty parlor



Above, a greenhouse enjoyed by patients; below, physical training given on the institution grounds



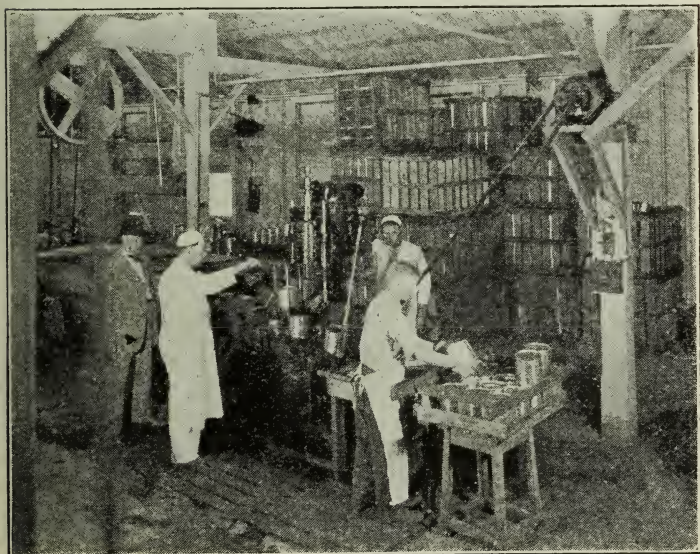
New type building and typical ward



A dining room and bakery in an Illinois state institution



A typical dairy herd and garden, both cared for by patients

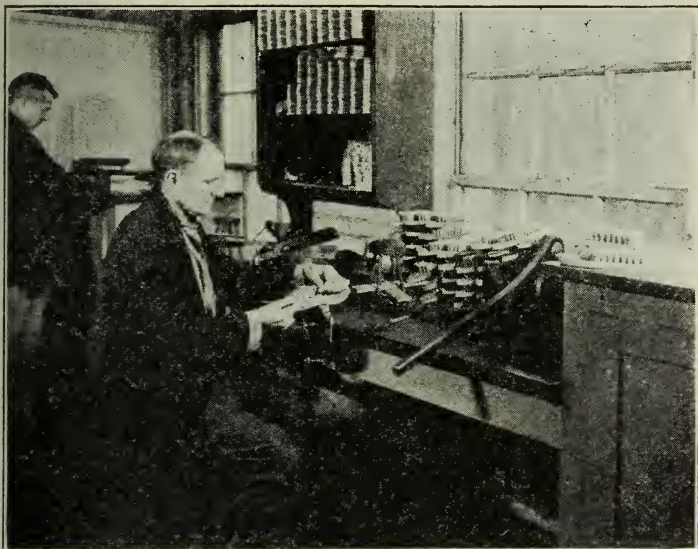


Canning, an institutional industry

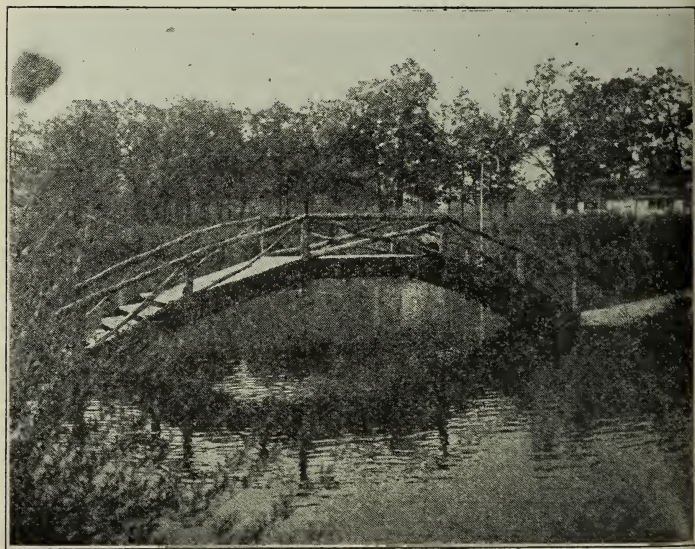
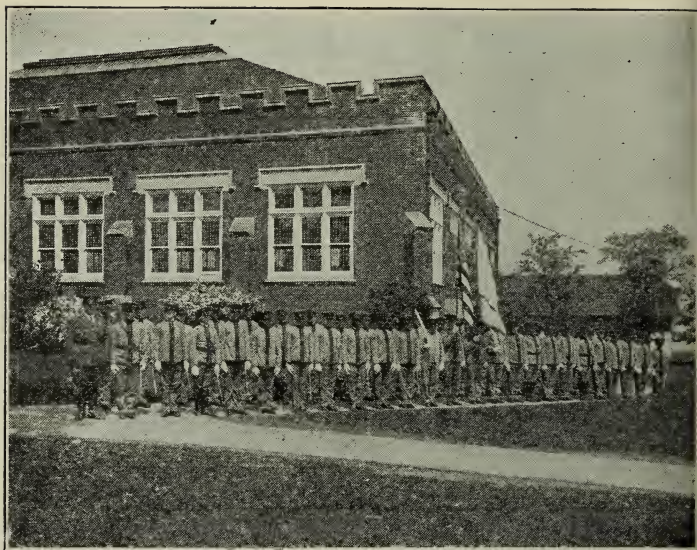


The feeble-minded children are also taught the value of neat attire

on hundreds of Illinois citizens. Lack of sufficient Federal hospitalization gave Illinois a double responsibility, and when Governor Small took office one of his first acts was to rehabilitate the State institutions in a program that included provision for the needs of all Illinois citizens who bore the mental and physical scars of war. Architects, medical and mental experts and other expert aid



Brush making and shoe repairing are taught at the institutions for feeble-minded

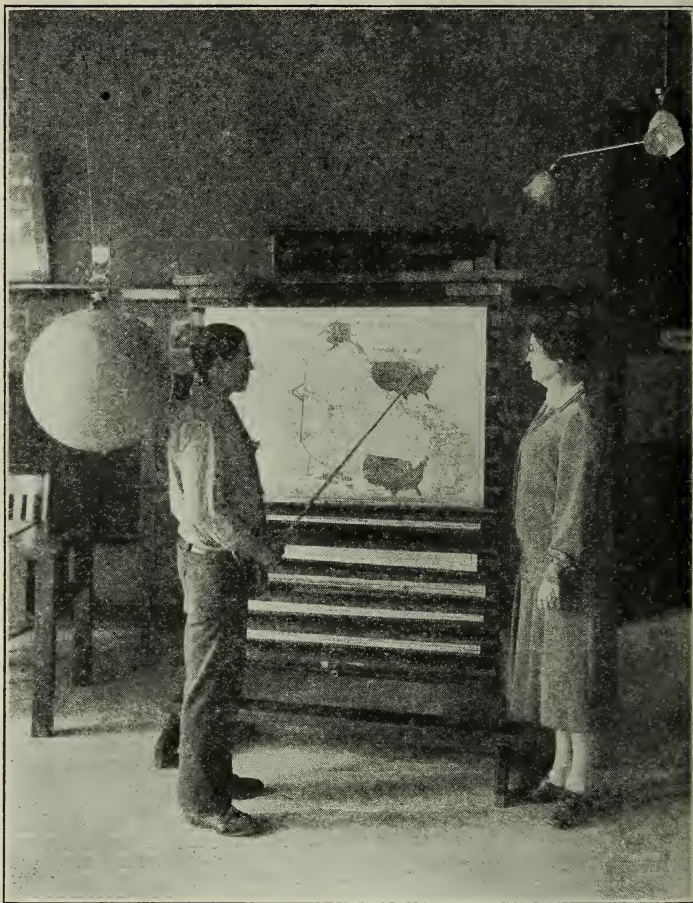


A military formation at the St. Charles School for Boys and the Bridge of Character built by the boys



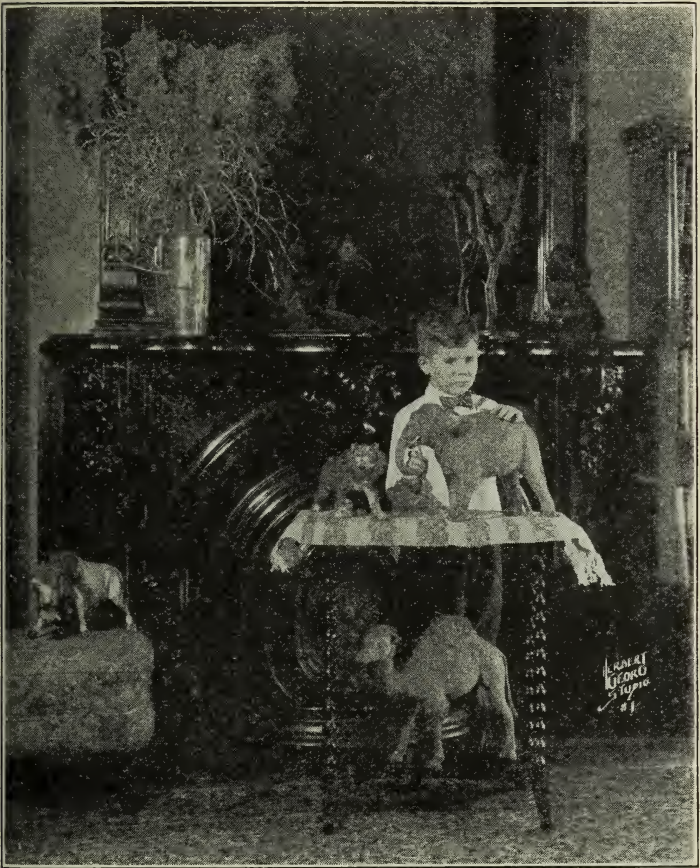
Learning to tell time at the Illinois School for the Blind

were enlisted in the planning and carrying out of the building work. Now Illinois can be justly proud of what has been done, and if Governor Small would leave no other record of progress than this, his double administration would go down in history as one which might well be the envy of the chief executive of any state.



A lesson in geography for the blind pupil

The cost of construction, mounting into many millions of dollars, has been kept at a point much lower than the usual cost of similar work for private use. Competition for the contracts under the bid system was kept as wide as possible, with the result that the lowest figures were obtained.



Blind children learn to tell what objects look like through sense perception

This pioneer spirit of thrift has been carried still further: the average cost of maintaining a person has been reduced to \$253.57 a year, an astonishingly low figure. Food and clothing are bought in quantity at low prices, and upwards of \$1,000,000 worth of food is grown at various institutions every year. In the industrial and occupational division manufactured products to the amount of \$1,500,000 were produced in 1927. With an



Another class in geography at the School for Blind

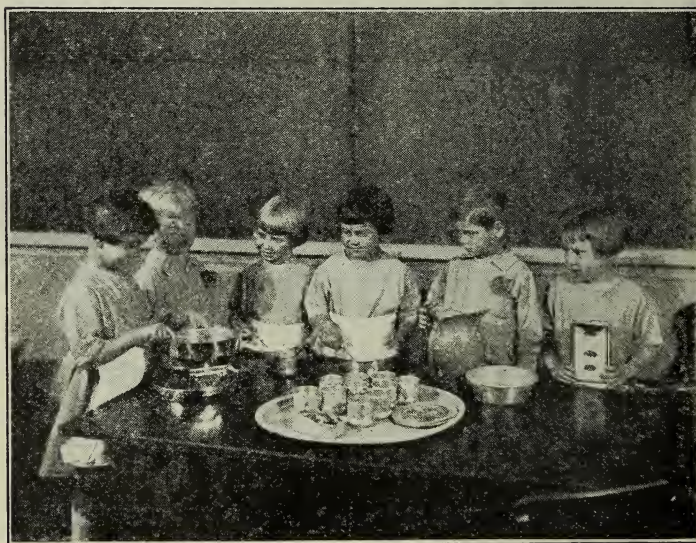
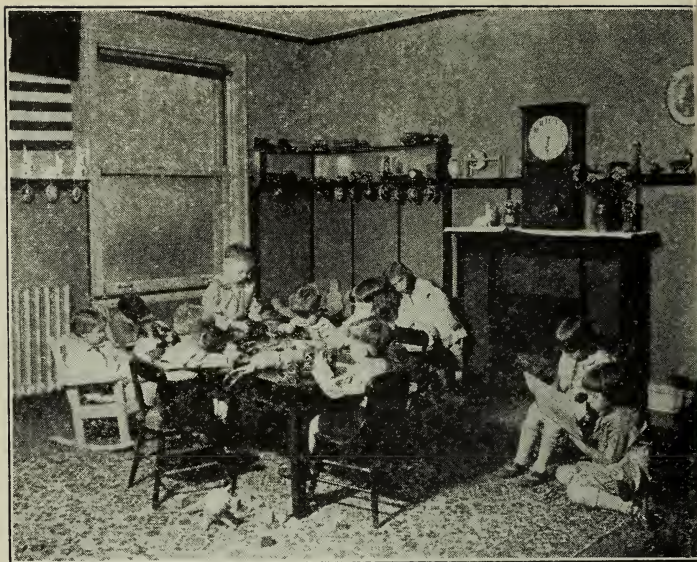
increase in State population of 7.3 per cent during the last 5 years, institutional population increased 17.8 per cent. The State taxpayers thus would have had much to fear in the way of higher taxes were it not for the additional revenue gained by the Department of Public Welfare through utilization and conservation.



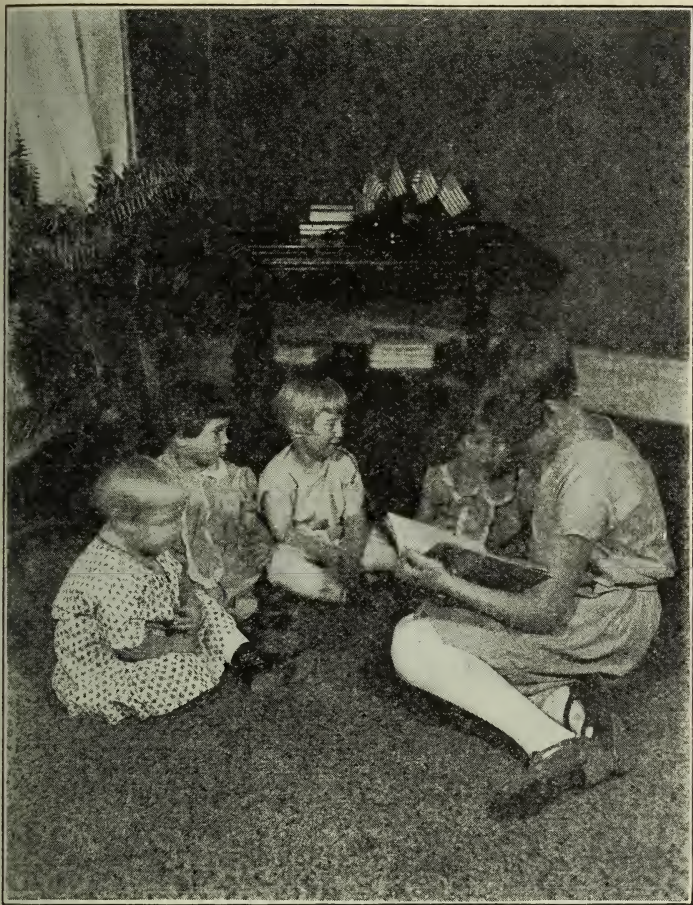
Transcribing music to Braille at the School for Blind where the publishing of Braille music for the blind is an industry

Citizen Consultation New Feature

During the past year an important step toward stimulating the active cooperation of the public was brought about through citizen representation on State hospital staffs. It has been illuminating to many that the Public Welfare Department is not the sole sponsor



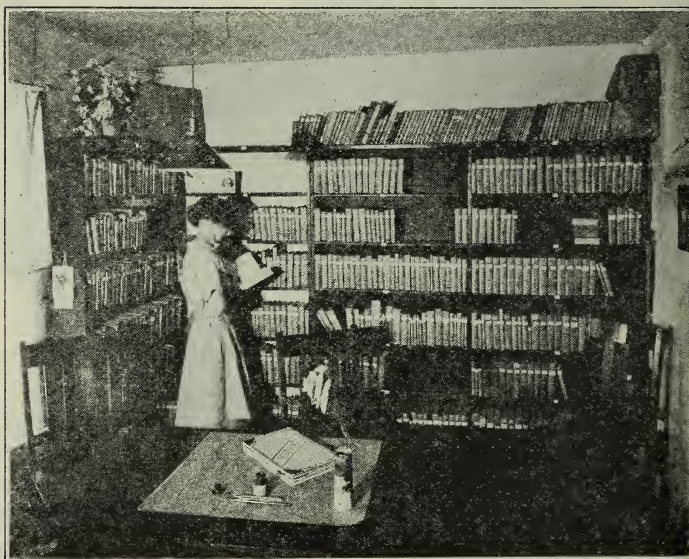
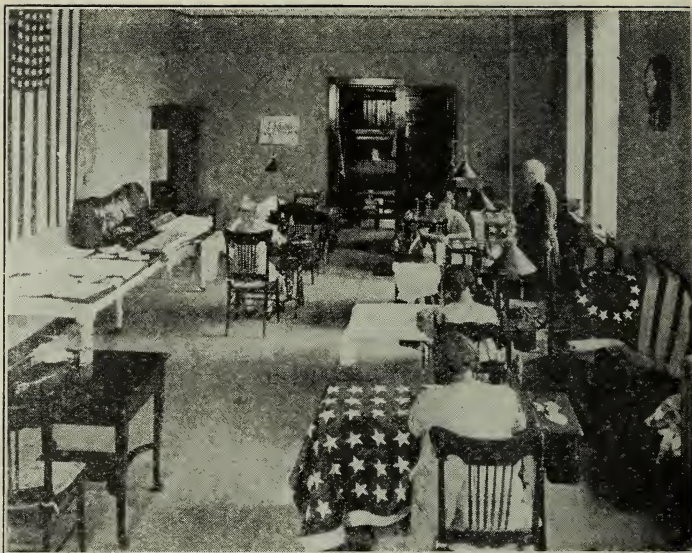
The children have happy homelike surroundings at the Illinois Soldiers' Orphans' Home



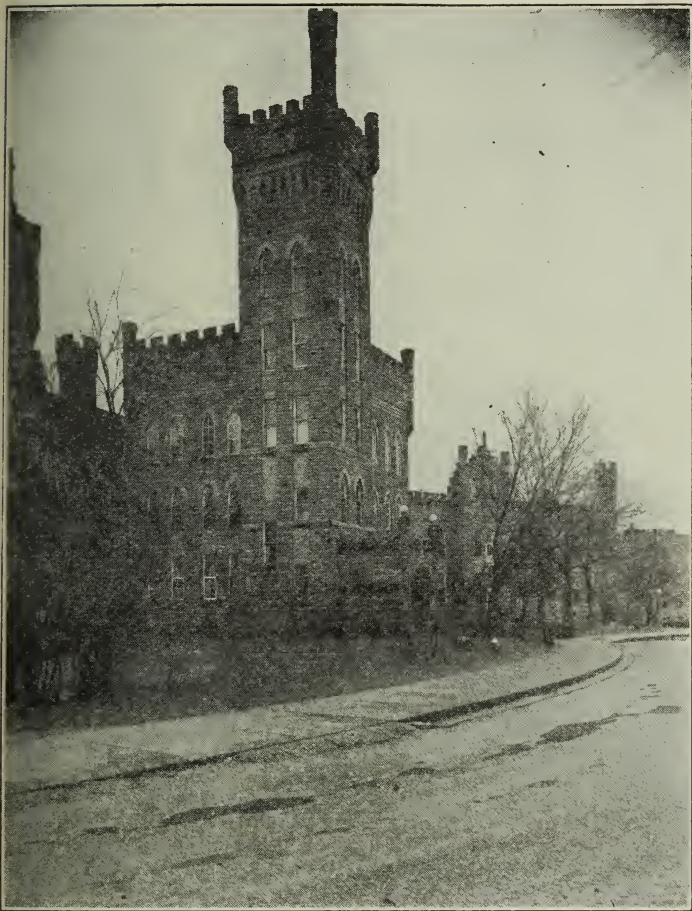
Story telling hour at the Illinois Soldiers' Orphans' Home

for the State ward; that they, themselves, as citizens of the State of Illinois, should feel an actively moral responsibility and that the Department of Public Welfare is merely to function as the mediator between the taxpayer and the State institution.

Although the new consulting staffs have been in effect but a few months, the results are marked. Many

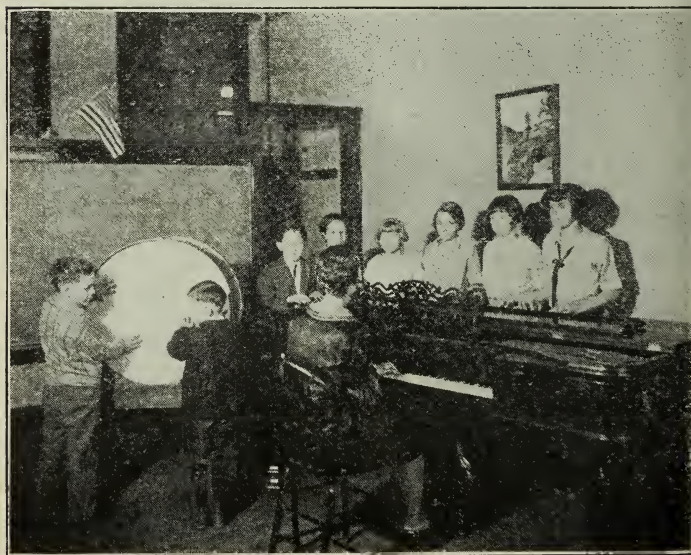
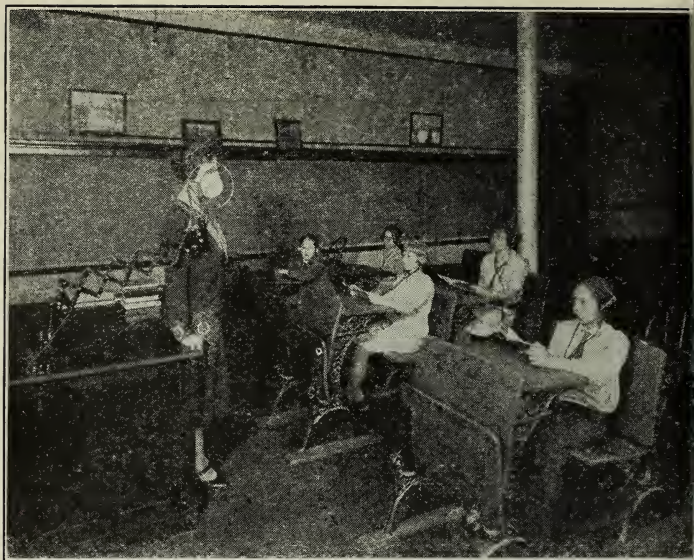


Above, flag making; below, the library at the Woman's Prison

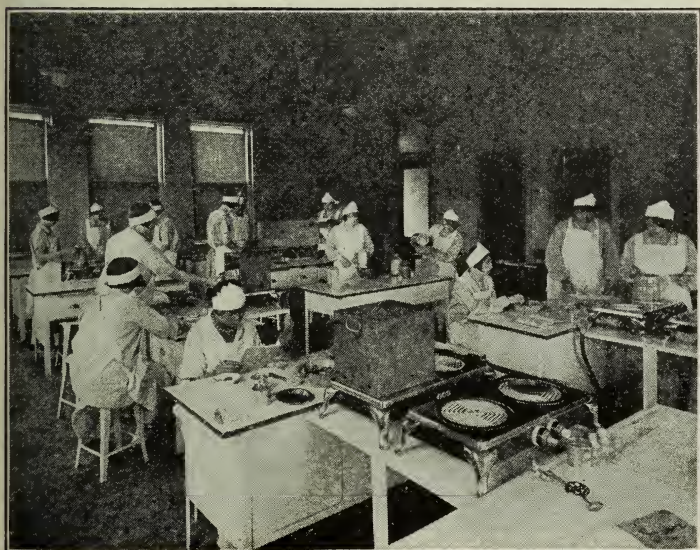
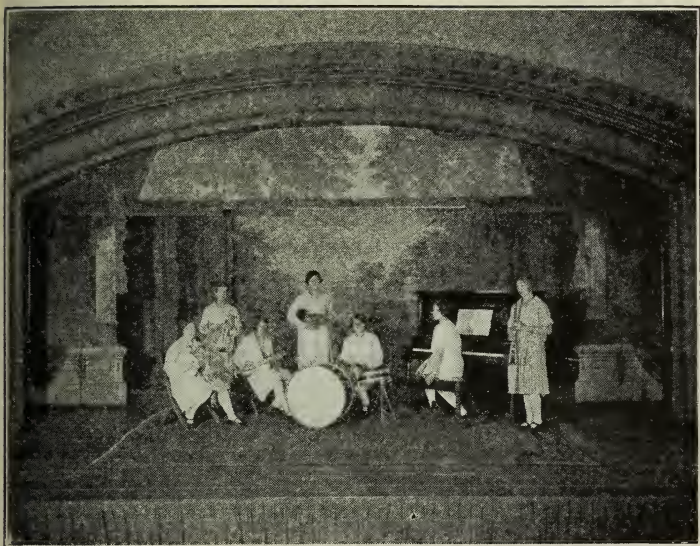


The exterior of the Illinois Woman's Prison, located at Joliet consultations are held where heretofore lack of personnel would have prevented. These consultations mean greater care for the patient, a more thorough diagnosis, and, many times, the all-important recovery and successful adjustment to society.

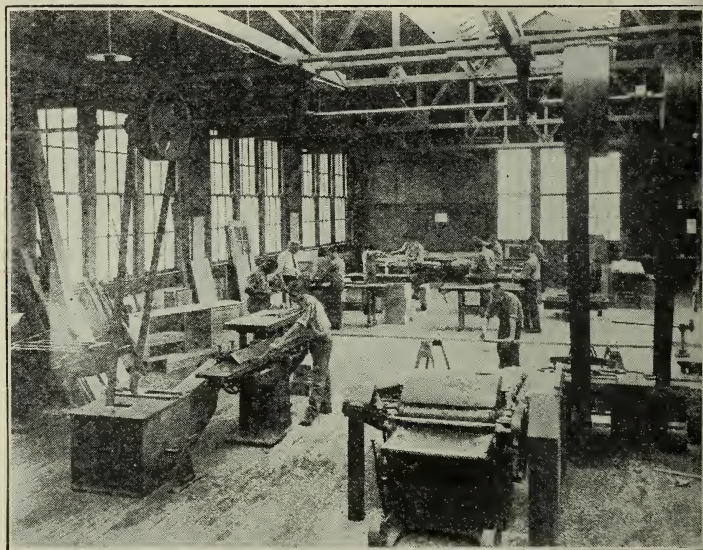
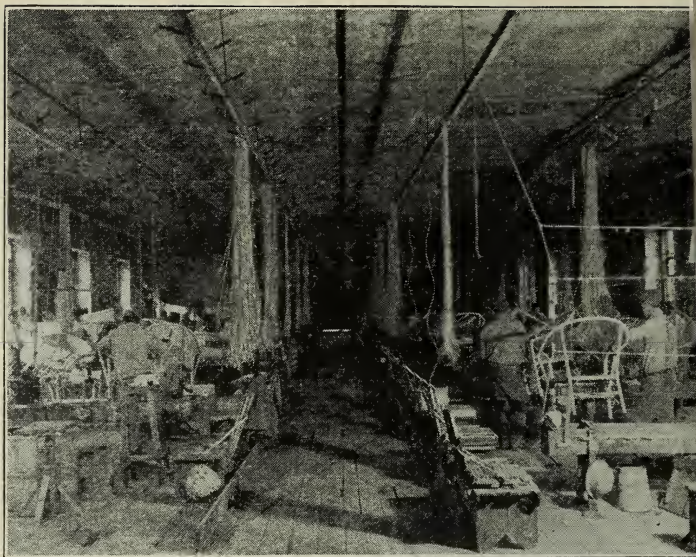
This plan has been inaugurated that the institutions may be opened to intimate public cooperation, to raise the



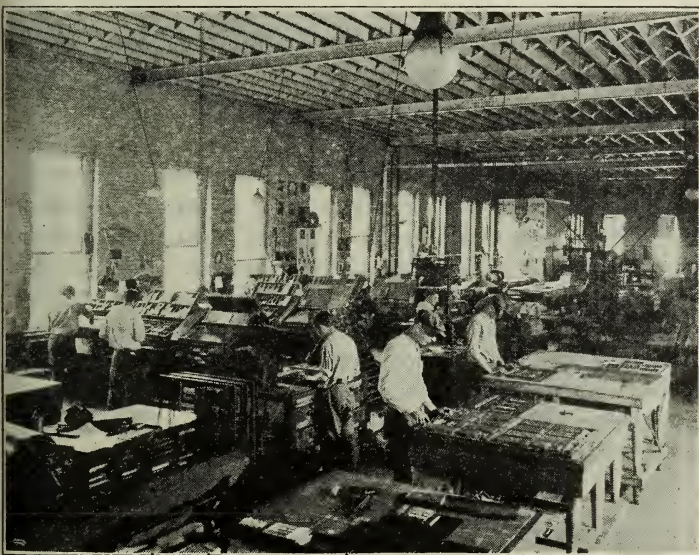
Above, a class using the audiphone; below, a class in speech production at the Illinois School for the Deaf



Above, the orchestra; below, domestic science class at Geneva State Training School



Industrial training at Pontiac



Above, the school; below, the print shop, at the Illinois State Reformatory, Pontiac

standards of the State hospital to that of the best of general hospitals and to cooperate with the outside specialist and general practitioner that the State wards may have the benefit of the united constructive and progressive efforts of the best medical brain and skill. With this system functioning in all of the nine State hospitals for the insane, it is not at all difficult to visualize the unlimited benefit to both patient and society at large.

Great as this accomplishment is, it is but a cog in the great wheel of Illinois' welfare progress. It is but a part of the broadest, most comprehensive inter-related welfare program ever attempted by any state. Last year plans for this extensive outline of cooperative, constructive, preventive work took definite shape and this year found the project in actual and effective operation.

This splendid advance in the treatment of the State wards called for another closely allied addition to the Welfare program. Realizing that the aftercare of the patient is an essential part of the medical program, the State administration has laid the foundation for a nursing service second to none in the world. The first step in this program will be a request to the Legislature for permission to establish a division to be called the Division of Nursing.

Still another significant part of the new plan is the proposed standardization and zoning of social service in the State. The State will be divided into zones and the State hospitals will be the administrative point of each zone, with each zone divided into sub-districts in charge of competent social service workers. Under this program all forms of social service work of the Department which have been carried out independently will be coordinated, thus providing for intensive and intelligent supervision at a decreased cost.

Mental Adjustment Clinic Planned

The establishment of a State Mental Adjustment Clinic for those over eighteen, where observation, diag-

nosis, treatment and advice may be secured, is yet another spoke planned for the great wheel of welfare work for the State. Such a plan aims to round up the mentally defective with definite criminal tendencies. Under this plan such a defective will either be placed where kindly custodial care will protect society from an inevitable future crime or, after observation, he will be treated for any physical defect which may be found to be responsible for the distorted mental quirk.

In other words, Illinois has set about in a practical manner to make a complete survey and set up the machinery for returning to their homes any unfortunates who could adapt themselves and become useful members of society, thus relieving the taxpayer of this unnecessary burden.

The present splendidly equipped and manned institutions where this care is bestowed have been made possible during the past seven years by the thoughtful and constructive guidance of Governor Len Small, the direction of C. H. Jenkins and his successor, Roy W. Ide, together with the generous support of the public as expressed through the State Legislature.

Department of Public Health

DR. ISAAC D. RAWLINGS, *Director*

BANKERS measure the results of their efforts by the money they make. Farmers count the bushels of wheat and corn which they garner into their bins in order to determine the degree of their success. Lawyers enumerate the number of court trials lost and won to calculate the magnitude of their professional importance. Health officers scan the mortality sheets to find out how effective their work has been.

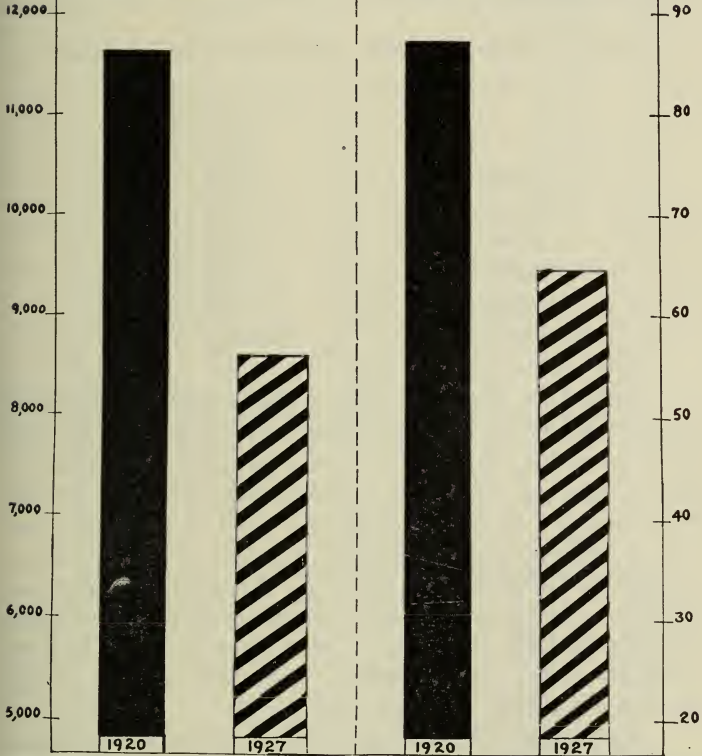
There are a number of ways of examining death rates for the purpose of appraising the efficiency of Public Health work. First, the general death rate from all causes may be compared with the rate that has prevailed during the past in the area over which the health department in question operates. Second, the death rate in this area may be compared with that in other similar areas. Third, the death rates from certain specific causes such as tuberculosis, typhoid fever and diphtheria and of certain age groups, like children under one year, may be studied and compared with similar rates during previous periods and in other areas. These specific rates are really a better index to the efficiency of Public Health work than is the general rate because they relate to conditions that can be more definitely controlled than such disorders as heart disease, cancer, nephritis and accidents which contribute enormously to the general mortality rate.

Considered from any and every one of these standpoints it is plainly clear from the mortality records that health conditions in Illinois under the administration of Governor Len Small have been significantly more favor-

INFANT MORTALITY IN ILLINOIS 1920 AND 1927

NUMBER OF DEATHS

DEATHS PER 1,000 BIRTHS



Both the number of deaths and the death rate among infants have been decreased through the efforts of public health workers, including the Illinois Department of Public Health

able than during any previous period of like duration in the history of the State. Pronounced improvement is obvious in many respects.

The general death rate has been decidedly lower throughout the whole administration of Governor Small

than in any previous period on record. Available statistics date back to 1916 only. That was the first year after the adoption of the present law which makes possible the collection and compilation of reliable birth and death reports. Death rates per 1,000 population from these official records are shown in Table 1.

TABLE 1. MORTALITY PER 1,000 POPULATION—ILLINOIS

Before—Governor Small—After	
	1921—11.1
	1922—11.3
1916—13.2	1923—12.0
1917—13.7	1924—11.2
1918—16.7	1925—11.5
1919—12.1	1926—11.8
1920—12.7	1927—11.3
Average 13.6	Average 11.4

It may be observed from Table 1 that the mortality rate in each year since 1920 has been lower than for any year preceding that date. The average annual rate for the second period was over two points less than for the first period. A difference of one point in the death rate per 1,000 persons in Illinois with the 1927 population, makes a difference of 7,314 in the actual number of deaths. Thus it is plain that 10,239 fewer persons died in Illinois in 1927 than would have been the case had the 1920 mortality rate prevailed. The accumulated saving of life since 1920 approximates 50,000.

Compared with other densely populated states Illinois has experienced a distinctly favorable mortality rate under the administration of Governor Small. No other state with a 1920 population of four million or more has reported an average annual death rate as low as that in Illinois. Table 2 gives the official statistics from this group of states. Only Ohio, where a splendid system of county health departments is functioning, has approached the favorable record in Illinois.

TABLE 2. MORTALITY PER 1,000 POPULATION—ILLINOIS

	1921	1922	1923	1924	1925	1926	1927	Av.
Illinois	11.1	11.3	12.	11.2	11.5	11.8	11.4	11.4
California	13.2	14.1	14.3	14.5	13.5	13.6	13.8	13.8
Massachusetts ..	12.2	12.8	13.	12.	12.5	12.6	11.6	12.4
Michigan	11.6	11.3	12.4	11.6	11.5	12.7	11.3	11.7
New York	12.3	13.	13.	12.7	12.8	13.4	12.3	12.8
Ohio	11.3	11.3	12.3	11.2	11.4	12.3	10.9	11.5
Pennsylvania ...	12.4	12.3	13.3	12.3	12.4	12.7	11.4	12.4

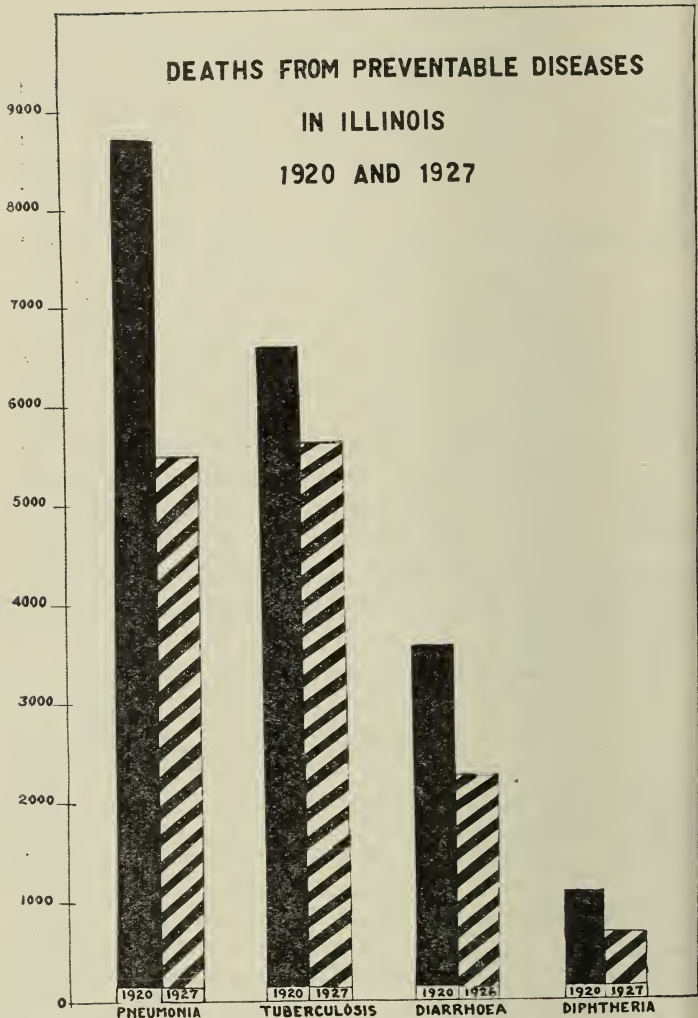
Very pronounced improvement has marked the course of mortality since 1920, from a large number of specific causes. Typhoid fever has declined nearly fifty per cent and has now almost disappeared from the State, compared with its prevalence twenty-five years ago. Deaths from diphtheria decreased from 1,128 in 1920 to 647 in 1927. Similar improvements are recorded in the mortality from half a dozen other communicable diseases including scarlet fever, tuberculosis, whooping cough, measles, diarrheal disorders and smallpox. The mortality rates per 100,000 population from these diseases appear in Table 3.

TABLE 3. DEATHS AND RATES PER 100,000—ILLINOIS

	1920		1927	
	Number	Rate	Number	Rate
Typhoid Fever	380	5.8	175	2.4
Diphtheria	1128	17.2	647	8.8
Diarrheal Disease	3532	54.0	2246*	31.2
Smallpox	16	0.23	3	0.03
Scarlet Fever	370	5.6	169	2.3
Whooping Cough	553	8.5	306	4.1
Tuberculosis	6568	100.5	5574	76.2
Measles	496	7.6	294	4.0
Pneumonia	8730	133.7	5472	74.7

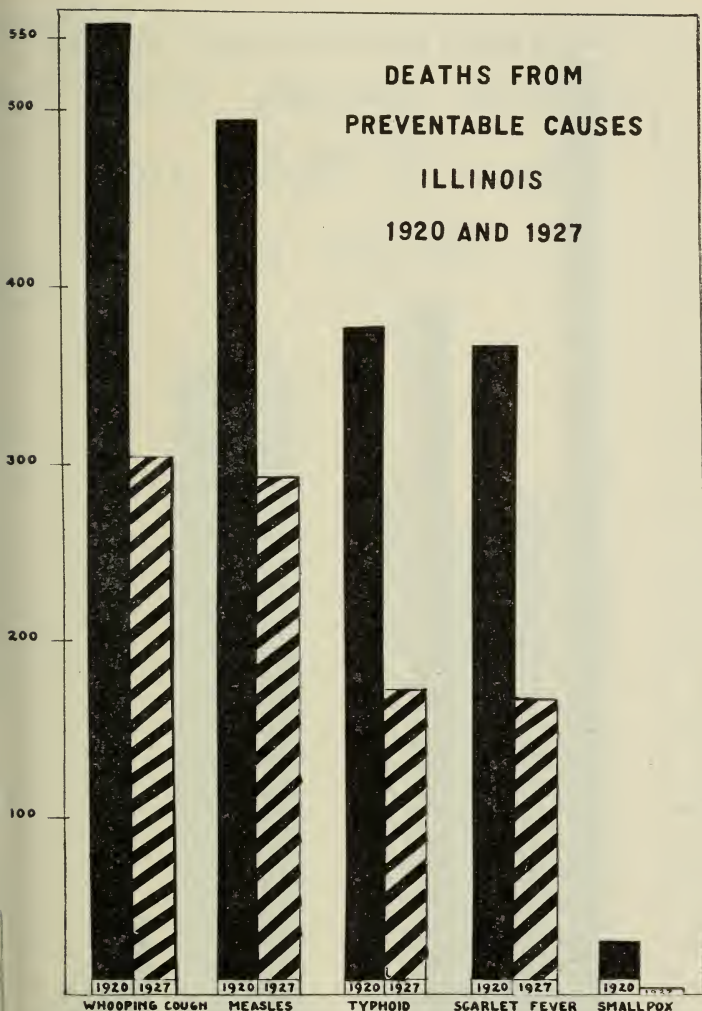
* This figure for 1926.

Again, the splendid decline in the infant mortality rate suggests a constantly increasing improvement in general health conditions. In 1920, the year before the inauguration of Governor Small for the first time, 11,641 babies under one year of age lost their lives in Illinois



A winning battle is being waged by Illinois against death from preventable diseases

before they even had a chance at an opportunity to show their worth or enjoy the happiness of living. This loss amounted to 87.5 out of each 1,000 new births, a rate of nearly 9 per cent.



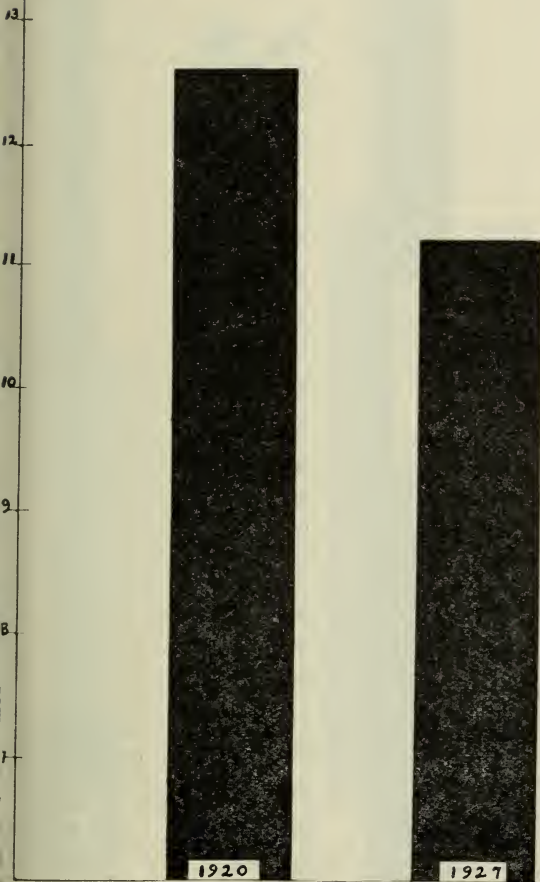
Although the population increases steadily, Illinois' deaths from these diseases grow fewer

In 1927 the number of deaths among children less than one year in Illinois was 8,604, a figure 26 per cent lower than that for 1920. The infant death rate per 1,000 births in 1927 was 64.4, indicating a decline of



nearly 27 per cent below the 1920 rate. The number of infant deaths per 1,000 births in 1920 was lower than for any preceding year on record but in no year under

DEATHS PER 1000 POPULATION
ALL CAUSES — ILLINOIS
1920 AND 1927



Illinois' death rate has dropped considerably

CASES OF TYPHOID — RESIDENTS ONLY

1922 — 1927

ALL CASES

CASES USED WELL WATER

USED CITY
WATER

20 40 60 80 100 120 140

DEATH RATES FROM PREVENTABLE DISEASES IN ILLINOIS 1920 AND 1927

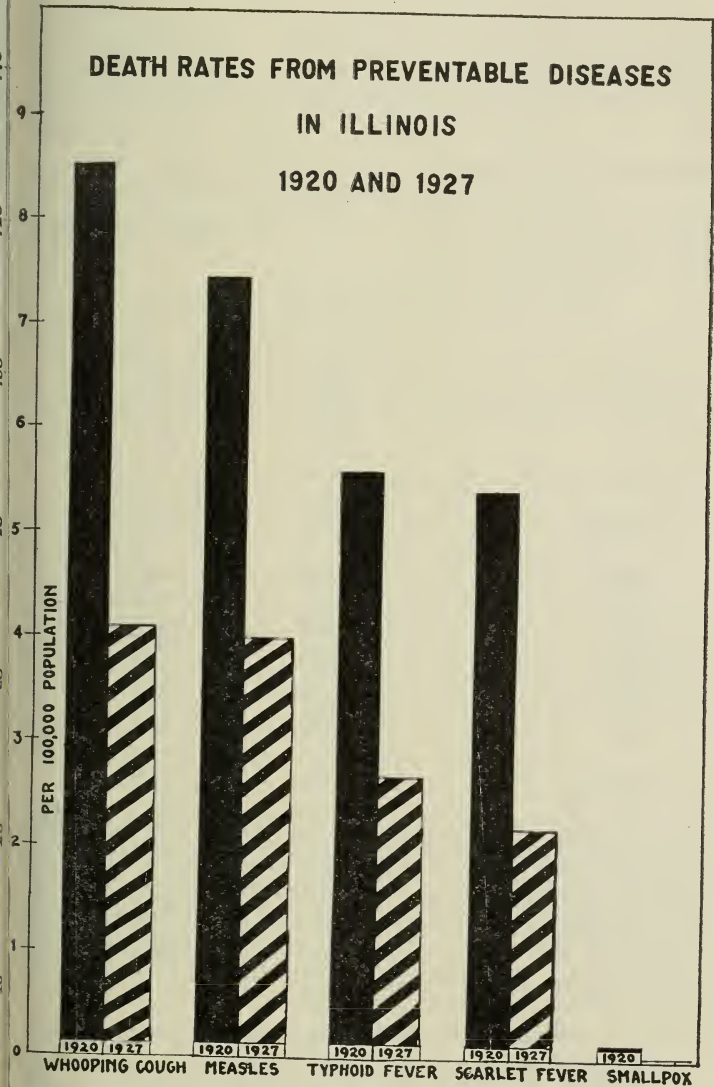


Chart showing how certain death rates in Illinois have dropped during Governor Small's Administration

Governor Small has the infant mortality rate been anything like as large as it was in 1920. The difference between the number of infant deaths in 1920 and the number in 1927 represents a saving of 3,037 little lives in one year alone. The accumulated saving over the seven years amounts to 12,358 lives. In other words, there are now living 12,358 children who would be dead had the number of infant deaths in each subsequent year been the same as that in 1920.

TABLE 4. INFANT MORTALITY IN ILLINOIS.

Year	Number	Rate per 1,000 births
1916	14518	119.9
1917	14029	118.9
1918	13109	105.7
1919	11148	94.4
1920	11641	87.5
<hr/>		
Average	12889	105.3
1921	10644	76.0
1922	10187	74.9
1923	10810	78.9
1924	9743	69.0
1925	9844	71.8
1926	9297	69.3
1927	8604	64.4
<hr/>		
Average	9875	72.0

A study of these statistics shows an unquestionable and pronounced improvement in general health conditions and for this improvement a considerable amount of credit may reasonably be given to the practical application of the principles and policies developed and promoted by the State Department of Public Health.

Factors in Health Improvement

One of the most important factors involved in the remarkable improvement in health conditions is the sanitary supervision over milk supplies. This has come about in two ways. First the State Department of Public Health

with the cooperation of the Department of Agriculture and the University of Illinois drew up an ordinance suitable for adoption and enforcement in municipalities. That was in 1921. Subsequently this ordinance was adopted by 65 municipalities outside Chicago.

The other way came about through the enactment of a law in 1925 which gave to the State Department of Public Health supervision over all milk pasteurizing plants in the State outside Chicago and provided the Department with a mobile laboratory for convenience in doing this work. The result is that a large percentage of the milk offered for sale on the market in Illinois is thoroughly sanitary from every point of view and this has doubtless been a large factor in lowering the infant mortality.

As a means of controlling communicable diseases, the diagnostic laboratory, the distribution of vaccines and the activity of the field medical staff have played important parts. The number of examinations made in the laboratories has grown from 39,543 in 1920 to 236,209 in 1927. Not only so but two full-duty branch laboratories, one at Carbondale and one at Chicago, were established during the same period. These laboratories not only do routine tests of a public health character but foster research and the study of unsolved problems.

The distribution of preventive vaccines and sera such as diphtheria antitoxin, diphtheria toxin-antitoxin, typhoid fever vaccine, smallpox vaccine and silver nitrate for the protection of the eyes of babies has increased enormously due largely to campaigns of education in the value of these products. This has been especially true concerning diphtheria toxin-antitoxin.

Since 1921, it has been the established policy of the Department to detail a field physician to make a special epidemiological investigation into the circumstances surrounding every reported case of typhoid fever, smallpox, meningitis and adult chicken pox. Field physicians have also been assigned for duty wherever epidemics took on

serious proportions. This policy has been the means of discovering and drying up forever many sources of infection which might otherwise have continued to plague the people indefinitely.

Another important factor in the improvement of health conditions has been the work of the sanitary engineers. The staff of engineers devote their time to the inspection of public water supply and sewage disposal systems, to the abatement of public nuisances, to the correction of stream pollution, to the examination of plans for the water supply and sewage-disposal systems of public sanatoriums, to the control of malaria-carrying mosquitoes, to the supervision over milk-pasteurizing plants, etc. Their work leads to such changes and modifications as are calculated to provide wholesome, sanitary conditions from which no epidemic diseases can spring. The number of field inspections in 1927 was 100 per cent greater than the number in 1920. This fact suggests the pronounced influence over local sanitary conditions which the work of the engineering division exercises.

Promoting maternal, infant and child hygiene is another field of service fruitful in bringing about better health conditions. The fact that the professional staff of the Child Hygiene Division was raised from five to twenty-five during the Small administration suggests the large increase and widening range of activities in this field. Something like 8,000 babies are examined annually at conferences supervised by this Division staff. A like number of school children are inspected. Diphtheria eradication campaigns are stimulated. Breast feeding is popularized. Dental hygiene is emphasized. In short the infant and child hygiene program has developed into a well-rounded project that compares favorably with what other progressive states are doing and that makes its influence felt upon health conditions.

A very marked improvement has taken place in the completeness and promptness of collecting, compiling, analyzing and publishing birth and death statistics. In

1920 the birth records in Illinois were so incomplete that they were not recognized by Federal officials as a part of the vital statistics history of the United States. At the end of an eighteen months' campaign started in 1922, the records were found by Federal test to be satisfactorily complete and Illinois was formally admitted to the United States birth registration area.

This success was but the forerunner of an improvement in every respect. Detailed reports of death covering almost every particular one could wish are now published annually. Prior to 1921, the only available source of satisfactory mortality statistics on Illinois was the U. S. Bureau of the Census and detailed data from that source were necessarily several years old. Now most of the more serviceable statistics are published within a few weeks or months after the year closes.

Long ago it was wisely proclaimed that a candle under a bushel is useless. So that the dissemination of sound knowledge about disease prevention and health promotion has been undertaken on a large scale. Literature by the tons has been distributed at county fairs and in other ways. Motion-picture films have been shown to hundreds of audiences. Newspapers have been supplied with copy. In short an appreciable degree of progress toward making the public health-conscious has been made.

These activities have stimulated a public demand for better health protection and the results of that demand are indicated by the statistics and graphical illustrations included in this report.

Department of Trade and Commerce

H. U. BAILEY, *Director*

F. E. O'BRYANT, *Assistant Director*

THE DEPARTMENT of Trade and Commerce is composed of the Divisions of Insurance, Grain Inspection at Chicago, Grain Inspection at East St. Louis, Fire Prevention, Illinois Commerce Commission, Standards and Small Loans. Following are descriptions of the work of the various Divisions included in this Department, together with the relations they bear to the people of the State, the nature of the service rendered to the public, and the extent of development under the administration of Governor Len Small.

DIVISION OF INSURANCE

GEORGE HUSKINSON, *Superintendent*

The Division of Insurance operates as one of the divisions in the Department of Trade and Commerce as outlined in the Civil Administrative Code of Illinois.

The first laws enacted by the Legislature of the State seeking to place the business of insurance under the supervision of the State were passed in the year 1869. In that year two distinct laws were enacted, one relating to fire, marine and inland navigation companies, and the other relating to legal reserve life insurance companies. The supervision of such companies and administration of the above mentioned Acts were vested in the Auditor of Public Accounts and the Attorney General.

In 1893 the Insurance Department of the State was created by legislative enactment, and this statute provided that the Insurance Superintendent should have all the

powers and perform all the duties in regard to the business of insurance in Illinois, which theretofore attached to the office of the Auditor of Public Accounts, and the Attorney General. From that time until 1917 the Insurance Department functioned as a separate unit, independent of any other branch of the State government.

The Civil Administrative Code of Illinois was adopted by the Legislature in 1917, and under the provisions of that statute the Insurance Department was made a part of the Department of Trade and Commerce, and designated the Division of Insurance.

The accompanying table will serve to give some idea of the tremendous increase in the volume of the insurance business during the administration of Governor Small, and the amount of work performed by the Division of Insurance.

The figures herewith merely show the increase in volume of business transacted by all kinds of insurance companies in this State and a comparison between the premiums received and losses paid in 1920 and in 1927. This will serve to give some indication of the value of the Illinois field as a source of insurance. In reviewing the above figures it should be borne in mind that the premiums collected are not only used to pay losses but a large proportion must be retained by the Companies to build up reserve funds required by statute.

Security Branch

On June 30, 1921, there were 46 insurance corporations which had deposits of securities with the Division of Insurance. Forty-one of these were companies organized under the laws of Illinois and five were companies of other states whose deposits are required by the reciprocal provisions of the laws of this State.

The total reserve deposits held by the State approximated \$25,000,000.

During the calendar year 1920, the approximate deposits were \$6,000,000 and the withdrawals \$4,000,000.

ILLINOIS

Kind	Year	Companies	Premiums on Illinois Business	Losses paid on Illinois Business	Increase in Premiums	Increase in Losses Paid
Fire	1920	605	\$ 59,696,580	\$ 25,516,649		
Fire	1927	614	77,822,400	50,611,713	\$18,125,820	\$25,095,064
Life (Legal Reserve)	1920	103	100,789,760	30,215,560		
Life (Legal Reserve)	1927	141	121,007,774	56,663,211	20,218,013	26,447,651
Life (Assessment)	1920	19	1,511,076	746,690		
Life (Assessment)	1927	29	2,677,567	1,047,470	1,166,491	300,780
Casualty	1920	225	47,423,699	19,836,748		
Casualty	1927	247	75,223,265	34,104,140	27,799,566	14,267,392
Fraternal	1920	148	19,173,614	13,515,974		
Fraternal	1927	151	21,889,668	15,669,752	2,716,054	2,153,778
Lloyds	1920	12	403,464	133,726		
Lloyds	1927	7	192,341	40,368	(Decrease) 211,123	(Decrease) 93,358
Total	1920		\$228,998,193	\$ 89,965,347		
Total	1927		298,813,015	158,136,654	\$69,814,822	\$68,171,307

On June 30, 1928, there were 69 insurance corporations which had deposits of securities with the Director of Trade and Commerce. Sixty-three of these are Illinois corporations and six are of other states whose deposits are required by the reciprocal provisions of the laws of this State.

Included among the 63 Illinois corporations are 31 legal reserve life insurance companies, 12 of which are also in the business of accident and health insurance. Seven of these legal reserve life insurance companies also maintain a deposit in the registered policy fund, law of 1899. There is also one deposit under the Assessment Life Act of 1927.

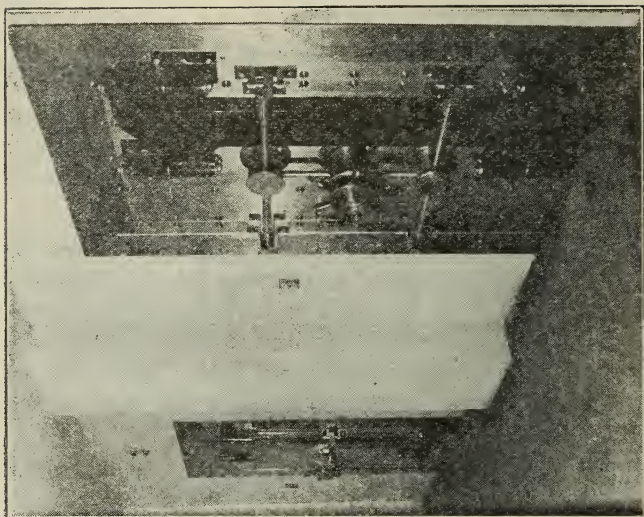
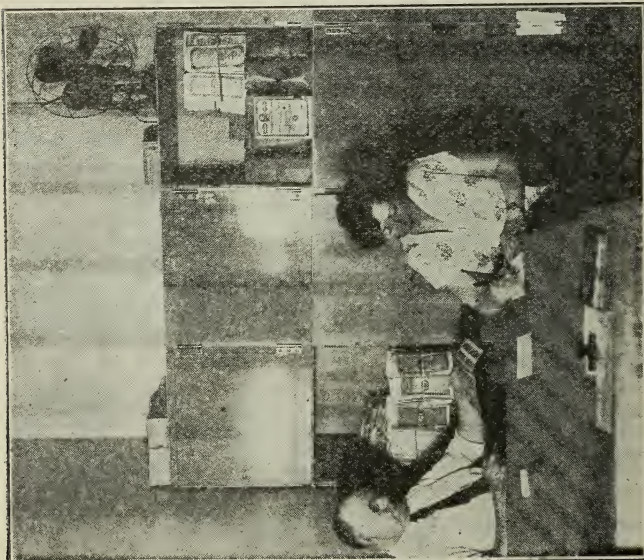
Thirteen deposits are made under the Casualty Act.

Our laws do not require deposits of assessment companies, interinsurance exchanges, stock fire, mutual fire, mutual casualty insurance companies or fraternal beneficiary societies. However, eighteen of such organizations optionally maintain deposits.

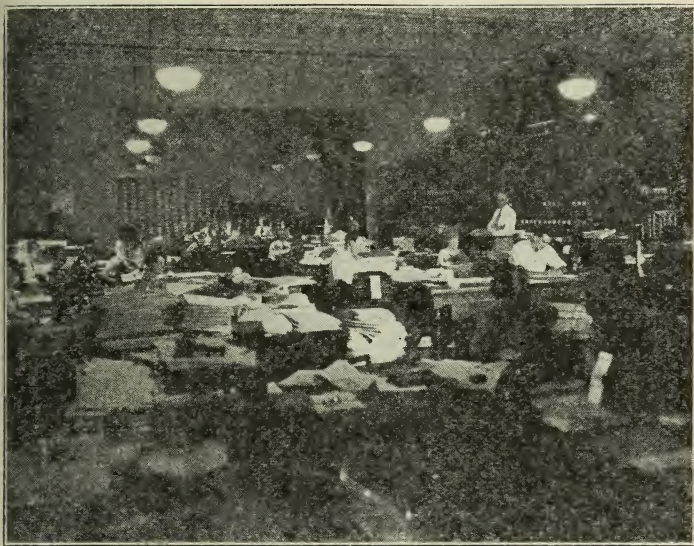
The total par value deposits on June 30, 1928, amounted to \$39,629,031, an increase of \$2,395,380.74 during the past fiscal year, during which period the deposits were approximately \$9,200,000, and the withdrawals approximately \$6,800,000, making the total deposits and withdrawals in excess of \$16,000,000.

More than two-thirds of the securities on deposit consist of first mortgage loans, the balance being in United States Liberty Loan Bonds, municipal bonds, joint stock land bank bonds, railway, public service corporations, public utility bonds, etc.

From the year 1921 to 1928, insurance companies depositing securities with the Department of Trade and Commerce, Division of Insurance, have increased from forty-six to sixty-nine, and the total amount of deposits have increased from \$25,000,000.00 to \$39,500,000.00, or a yearly average net increase of deposits over withdrawals of \$2,000,000. During the past fiscal year interest of



(Left) Interior of deposit vault recently built in basement of Capitol. Approximately \$40,000,000 in securities is kept in this vault. (Right) Doors of old and new security vaults



General office, Division of Insurance, Department of Trade and Commerce, Springfield

approximately \$2,000,000 was clipped and forwarded to these companies.

In 1921, the securities were kept in an old vault in the main office of the Division of Insurance. This vault was of an antique type constructed of brick and mortar and equipped with a single combination lock and very insecure. In 1925, a modern double combination and time lock, burglar- and fire-proof vault was installed in the basement under the main office of the Division of Insurance, and also a twin vault with a combination lock. These vaults are constructed with reinforced concrete and sheet boiler steel and can be entered only through the main office of the Insurance Division, by a closed stairway, at the bottom of which is a steel door equipped with a burglar-proof lock.

This door leads into a large room divided by a steel grill with a similar lock. The room contains regulation office fixtures and telephone and is entered only with the

permission of and accompanied by the securities examiner, who is the sole custodian of the securities and is heavily bonded.

Financial Branch

The following table indicates the nature, source and amount of collections by this Division for the year ending June 30, 1928:

Agents' certificates (fire, etc.).....	\$ 138,854.00
Agents' certificates (life).....	48,852.00
Certificates of Comp., Dep., & Val.....	2,671.00
Registering policies	2,039.50
Annual statements (fire, etc.).....	9,657.00
Annual statements (life).....	2,740.00
Examinations	31,534.69
Privilege Tax	5,088,409.48
Fire Marshal Tax.....	138,325.81
District, County & Twp. Mutuels.....	242.00
Special Agents, (Surplus Lines).....	491.92
Assessment Associations (filing stmts.).....	1,275.00
State licenses	3,380.00
Lloyds and Inter-Insurers.....	2,545.40
Valuing Insurance	41,109.18
Charters filed	4,807.00
Mutual Union Benefit Assns.....	480.00
Miscellaneous	3,525.83
	<hr/>
	\$ 5,520,939.81

It is interesting to note the marked increase in the collections of the Division. In 1921 the total collections amounted to \$3,379,365.62; in 1923, \$3,600,983.00; 1925, \$4,012,553.33; 1927, \$5,384,617.50, and 1928, \$5,520,939.81. The substantial increase in the revenue of this Department reflects a corresponding growth in this State of insurance in general and would indicate that the residents of Illinois realize the value of the protection afforded against the hazards of life and property.

Agents' Licenses

This Department is charged with the issuance of licenses to agents for soliciting applications for insurance

and issuing of policies to individuals and on property located in the State. Under existing laws all persons soliciting applications for insurance for the following classes of companies are required to be licensed by this Department: Fire and Surety Companies and Lloyds of this State, and Fire, Life, Casualty, Surety and Lloyds of other states, and foreign governments. The issuance of licenses and the minimum fees therefor in all referred to are specifically provided for in the laws of this State; assessment and interinsurers' licenses are issued only under the reciprocal law, and the fees charged are the same as are charged Illinois associations operating in the various states.

All licenses issued under the above provisions expire annually as follows: Fire, Life, Casualty, Assessment and Lloyds on March 1st, and Surety on January 31st.

From January 1, 1927, to December 31, 1927, the Division of Insurance issued approximately 91,000 such licenses, divided as follows: Fire, 47,000; Life, 23,500; Casualty, 15,000; Surety, 5,000; Assessment and Lloyds, 480; and Reciprocals, 20; and the fees collected for same were in excess of \$182,000.

Owing to the fact that all licenses expire annually, either on January 31 or March 1, requisitions for renewals requesting about 70,000 licenses are received on these two dates. There is an immense amount of detail work involved, and the same must be performed rapidly and accurately, to give the companies the service to which they are entitled.

Prior to 1922 the form of agent's certificate in use was a large lithographed sheet measuring 9 by 14 inches and was not in any way adapted for practical use, and the method applied in the issuance of licenses was fruitful of error. Each company furnished a list of its agents and the certificates were written in the Department. Many of the lists to be copied were written in long hand and it was impossible to avoid mistakes. The result was that many came back for correction causing the company

officials and the Department much unnecessary annoyance.

In 1922, under Governor Small's administration, the system was changed, whereby the companies filled out four small attached cards, typewritten, the first being the requisition, the second, triplicate agent's license, the third duplicate agent's license and the fourth the agent's license. After the cards have been countersigned in the Department, the last two are returned to the company. This arrangement has proven very satisfactory in every way. The company has a duplicate for its files and the Department has the requisition, which is filed under the name of the company, and the triplicate license is filed under the name of the agent. At the present time two people are doing all the work in this branch, while in the past it required six or eight, and virtually none of the cards are returned for correction. The agent's certificate is just the size to fit the average bill-fold, while the old lithographed sheet was only good to frame and not practicable to carry, even though it was often needed to establish an agent's authority.

Lloyds

The Division of Insurance has made considerable progress during the latter half of the year 1927, in the way of control over insurance organizations operating on the Lloyds Plan. This Department exerted great effort to put a Bill through the Illinois Legislature which would strengthen the old 1911 Lloyds Act. The old Act permitted Lloyds to be licensed to write only fire, lightning, hail, windstorm and sprinkler leakage insurance, but most of these associations were writing a casualty business in Illinois, and this office was powerless and had no authority to control them.

At the 1923 and 1925 sessions of the Legislature, the Department's efforts were in vain, but in 1927 a new Lloyds Act was passed, providing that all concerns operating as Lloyds in the State of Illinois must comply, and

permitting this office to license and control them both in fire and casualty lines.

In order that the underwriter's guarantee fund may always be available for the protection of policy-holders, this Department by a special ruling requires such fund to be deposited under a trust deposit agreement with a reputable bank or trust company, as trustee, whereby no securities may be withdrawn without the written authorization of the Director of Trade and Commerce. All original powers of attorney are also required to be on file in this office.

The above procedure has been passed upon by capable legal talent and held to be a discretionary right of the Director of Trade and Commerce.

ILLINOIS STATE GRAIN INSPECTION

GEORGE HITZMAN, *Chief Grain Inspector*

Early in the development of the American Grain Markets, a need was felt for some sort of official standard by which different samples of grain could be accurately judged. No recognized public authority was sanctioned; if the buyer sold again, additional examinations became necessary, each with its attendant disagreements as to quality and price. The pioneer business of grain marketing, indeed, was filled with time-consuming details and in the end neither party in the trade was likely to be satisfied.

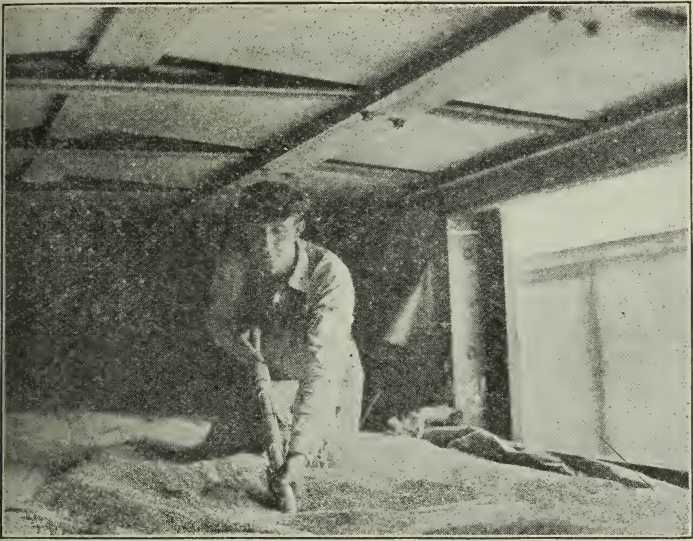
Chicago was the first market in the world to recognize and meet the necessity for inspection by a disinterested party, and grain inspection, as it is known today, had its origin in the year 1857, under the auspices of the Chicago Board of Trade. The railroads had not then extended their lines far into the western prairies and the receipts of grain were almost entirely from Wisconsin and the northern part of Illinois.

By the year 1870 practically all of the primary markets of the United States dealing exclusively in grain had adopted rules and had organized inspection departments modeled after the Chicago Grain Inspection. With the



Section of Record Clerk's office, Division of Grain Inspection, Chicago

development of the great western wheat fields competition in the various exchanges became increasingly keen and there was little incentive offered to uniformity of grades and their application in the several markets. Inspection certificates in one market were often refused in other markets for no apparent or logical reason. As a consequence of wide dissatisfaction with the system of inspection then in operation, the State of Illinois, under the authority of the Constitution of 1870, stepped in and assumed official charge with the appointment of William F. Tompkins as Chief Grain Inspector, July 3, 1871. Since that date state inspection has been the official inspection on the Chicago Grain Exchange and all other inter-state and intra-state shipments as well. Inspection at East St. Louis was inaugurated August 1, 1897 with the appointment of G. E. Compton as Superintendent of Inspection in charge.



Grain Sampler taking samples from a car load of grain,
Division of Grain Inspection, Chicago

The inspection and grading of grain in Illinois has now reached a stage where no portion of the great grain marketing business moves with greater ease and more efficiency. Minnesota, Wisconsin, Missouri, Kansas, Washington, Oregon and other states have followed the example of Illinois and instituted official inspection services under full state control.

Grain inspection now has a far more important meaning than that ascribed to it in earlier history and the grain inspection department of the present has become a more essential factor in the transaction of business as between the producer, dealer and consumer. Our present system of inspection is not the inception of the moment but rather the outgrowth of the wonderful evolution that has taken place in the methods of marketing and handling grain within the last half century. As the trade continues to progress so must the work of the inspectors improve to meet the demands and added responsibilities.

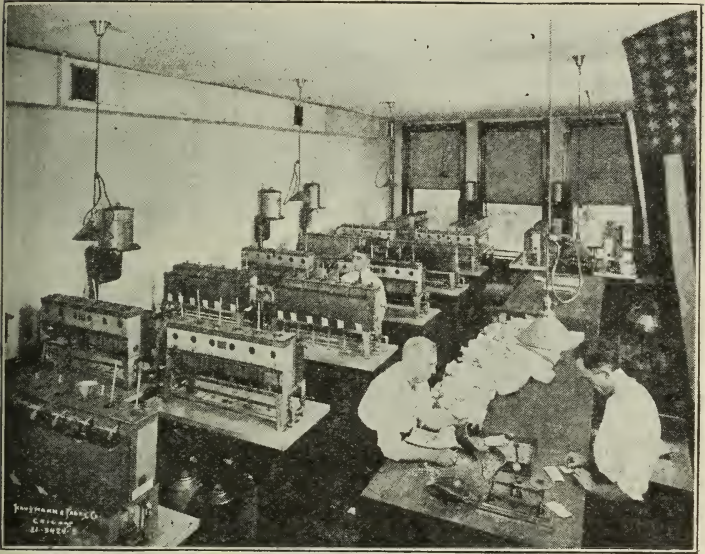


Inspecting grain—a section of the inspection room,
Division of Grain Inspection, Chicago

Conforms to U. S. Grain Standards Act

During the past seven years all grain inspections in the State of Illinois have been made strictly in conformance with the United States Grain Standards Act and every precaution has been taken to assure both the shipper and receiver a square deal for we realize most keenly the fact that we are placing a value upon other people's property.

The position of the Illinois Inspection Department in its relation to the public is one of peculiar difficulty and responsibility. It stands as an arbitrator between buyer and seller, between producer and consumer, and practically fixes the value of the immense quantities of grain passing under its supervision. At times it has been subjected to violent pressure in one direction from the receivers and again in a contrary direction from eastern and foreign buyers and to harsh and often unmerited criticism from both.



Testing grain for moisture—a section of the moisture testing room, Division of Grain Inspection, Chicago

Notwithstanding the criticism that has been voiced against it, the aim at all times of those in charge has been to secure such fair interpretation and impartial application of existing rules as to do exact justice to all parties interested and at the same time to maintain the present enviable reputation borne by the certificates of the department in the markets of the world. The inspection of the Illinois Grain Inspection Department has been of slow and steady growth, has practically changed the business methods of the grain trade wherever American cereals are consumed, and it is not too much to say the preeminence of Chicago as a grain market is due, in a measure, to the public confidence in the integrity and accuracy of the work of her inspectors as well as to the favorable location, her unsurpassed facilities and the push and enterprise of her citizens.

Grain Inspection has taught the farmers to appreciate the factors which control the grading of grain and

has been the cause of their now growing standard varieties adapted to their particular soil and climate. It also has shown them the necessity of planting seed that is pure-bred only, and free from weed seed and other adulteration. The most progressive farmers are now taking every precaution to prevent injury from insect pests and damage to their grain from plant diseases. They are exercising more care in the harvesting, threshing, and storage of their wheat, oats, corn and barley. They are demanding and receiving better service from country elevators and commission men. Grain inspection has standardized the growing and marketing of grain and has made possible premium prices for premium grain.

Illinois Commerce Commission

P. H. MOYNIHAN, *Chairman*

HAL W. TROVILLION

WM. J. SMITH

EDWARD H. WRIGHT

ALEX J. JOHNSON

J. PAUL KUHN

Commissioners

JULIUS JOHNSON, *Secretary*

EXECUTIVE SECTION

A review of the work of the Illinois Commerce Commission discloses a remarkable record for the volume of business transacted.

The Commission has ordered reductions in utility rates, during the 1921-1927 period, resulting in a saving to the people of Illinois aggregating \$100,000,000 and affecting 1,789 cities and municipalities. As a result of these reductions, public confidence has been restored and good will promoted and established, so that today public utility stocks and securities are selling at from 25 to 35 per cent higher than in 1921.

A glance at the following tabulations will reveal the magnitude of the seven and one-half years' business transacted by the Commission in every line of public utility regulation:

Applications, petitions and complaints filed.....	7,167
Formal hearings conducted.....	11,937
Informal complaints adjusted.....	17,949
Orders entered	13,841

Authorizations

Securities authorized	\$1,542,082,141
Fees collected	\$635,133

In harmony with the policy inaugurated by Governor Small's administration, the Illinois Commerce Commission has functioned for the people without prejudice or injury to any public utility under its jurisdiction, on the broad principle of fairness and justice to all concerned.

ENGINEERING SECTION

The Commission, recognizing the importance of proper and adequate service, has through its engineers developed a method whereby the actual quality of service furnished by utilities can be accurately measured. This method of grading service has proven to be of great value to the utilities and to consumers throughout the State. The Commission has received numerous inquiries regarding the method of operation of this grading system from other State commissions, public utilities, and the National Bureau of Standards. The Commission makes regular inspections of the service furnished in each community. During this period 6,819 service inspections have been conducted.

Rate cases require that the Commission have a complete inventory and appraisal of the utility's property, information of the operating costs, depreciation, and estimates showing the effect of any changes in rates upon the income of the property. The Commission has consistently adhered to the policy that an independent check of all these factors should be made by its own engineers.

During this period the engineers have inventoried and appraised electric property amounting to \$79,698,000, telephone property amounting to \$33,423,000, water property amounting to \$25,215,000, heat property amounting to \$2,150,000, and gas property amounting to \$20,652,000. Total property thus inventoried and appraised \$161,138,000.

Utilities are required to file annual statements showing costs of operation, revenues and changes in property and these reports are available to public inspection.

One of the most important investigations in the utility field ever carried out resulted in the adoption of what is known as General Order 115, which covers standards for overhead electric line construction throughout this State. Investigations which led to the adoption of this general order were carried out over a period of several years and covered the construction of methods of a large number of utilities throughout the State.

The great expansion of the hard road system under Governor Small's administration has resulted in a very pronounced extension of the railroad activities of the Commission. Many of these hard roads cross railroads, and usually these crossings are at grade. The safety of the traveling public demands that these grade crossings be adequately protected and the Commission has uniformly insisted that proper crossing signals be installed and the crossing itself be constructed to afford the greatest measure of traveling safety.

Informal Cases

Accidents—Investigations and Reports.....	568
Complaints—Investigations and Reports.....	4,849
All other Investigations and Reports.....	893
Wire Crossing Permits.....	1,248
Interlocking Plans Approved.....	579
Interlocking Plants Inspected.....	332
Interlocking Permits Issued.....	256
Service Inspections	6,819
Facility Licenses	2,405
Total	17,949

ACCOUNTING SECTION

During the period beginning January 1, 1921, and ending June 30, 1928, the Commission authorized utilities to issue securities in the aggregate amount of \$1,542,082,-141.47. The orders authorizing the foregoing securities provided for fees payable into the State Treasury in the aggregate amount of \$661,425.24.

The following tabulation shows the amount of securities authorized during each year, or portion of year, as indicated:

Period	Amount Authorized
Jan. 1, 1921, to June 30, 1921.....	\$ 96,964,242.00
July 1, 1921, to June 30, 1922.....	207,105,347.31
July 1, 1922, to June 30, 1923.....	363,944,002.67
July 1, 1923, to June 30, 1924.....	194,988,347.84
July 1, 1924, to June 30, 1925.....	155,925,128.00
July 1, 1925, to June 30, 1926.....	154,718,625.65
July 1, 1926, to June 30, 1927.....	183,112,053.00
July 1, 1927, to June 30, 1928.....	185,324,395.00
Total	<u>\$1,542,082,141.47</u>

Utilities Under Jurisdiction of Commission

At the present time there are 994 utilities of various classes under the jurisdiction of the Commission.

The following tabulation gives the number of each of the various classes as of the close of the fiscal year 1928:

Class	Number
Steam, Electric and Water Carriers.....	210
Motor Bus Lines.....	112
Electric, Gas, Heat and Water Utilities.....	205
Grain Elevators—Public Storage	28
Telegraph and Telephone Companies.....	439
Total	<u>994</u>
Communities Served	1,789
Consumers	1,700,000
Book Value of investment in Public Utilities in the State of Illinois.....	
Total	<u>\$1,100,000,000</u>

SECTION RATES AND TARIFFS

During the period January 1, 1921, to July 1, 1928, reductions in rates were made by order or approval of the Commission in the number of cities, towns or villages indicated below:

Electric lighting rates.....	832
Electric power rates.....	1,010
Electric cooking, heating and domestic appliances.....	561
General and industrial gas rates.....	294
House heating gas rates.....	38

During this same period numerous reductions were made by order of the Commission in the rates for the transportation of bituminous coal from various mines in Illinois, principal among which are:

Reduction of 11 cents per ton in the rates to East St. Louis.

Reduction of 5 cents per ton in the rates to Chicago.

Reduction of 21 cents per ton in the rates to Moline.

Reduction of 17 cents per ton to Freeport and Rockford.

Reduction of 22 cents per ton to Peoria.

Reduction of 27 cents per ton to Hoopeston.

Reduction of 42 cents per ton from the Springfield district to Bloomington.

Reduction of 13 cents per ton to Cairo.

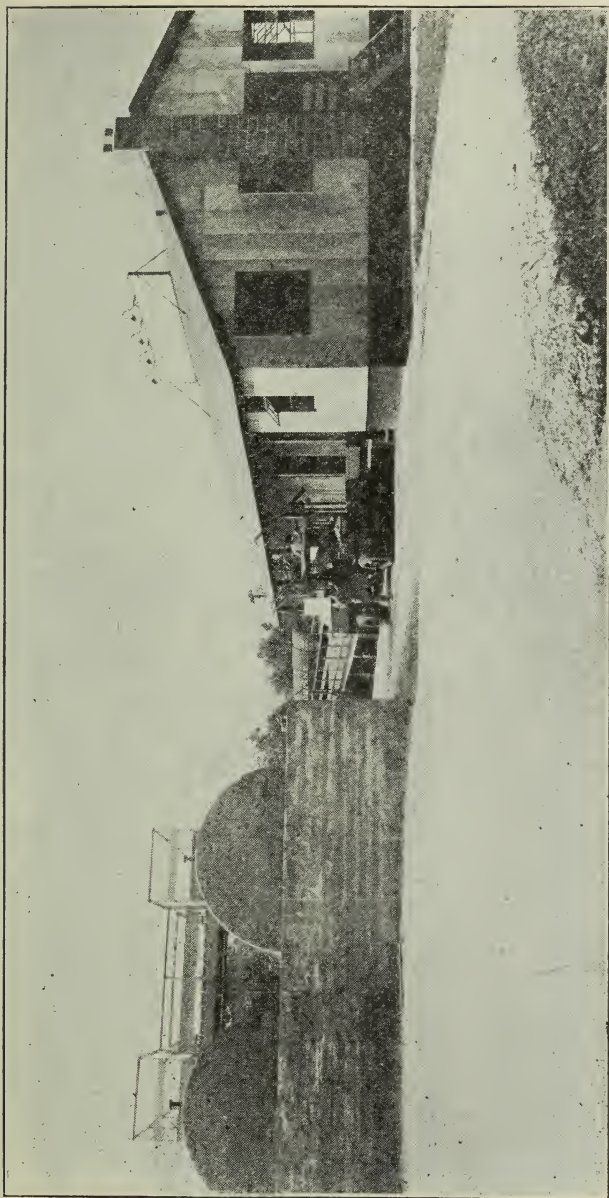
Effective July 1, 1922, all freight rates were reduced 10 per cent by order of the Commission.

DIVISION OF FIRE PREVENTION

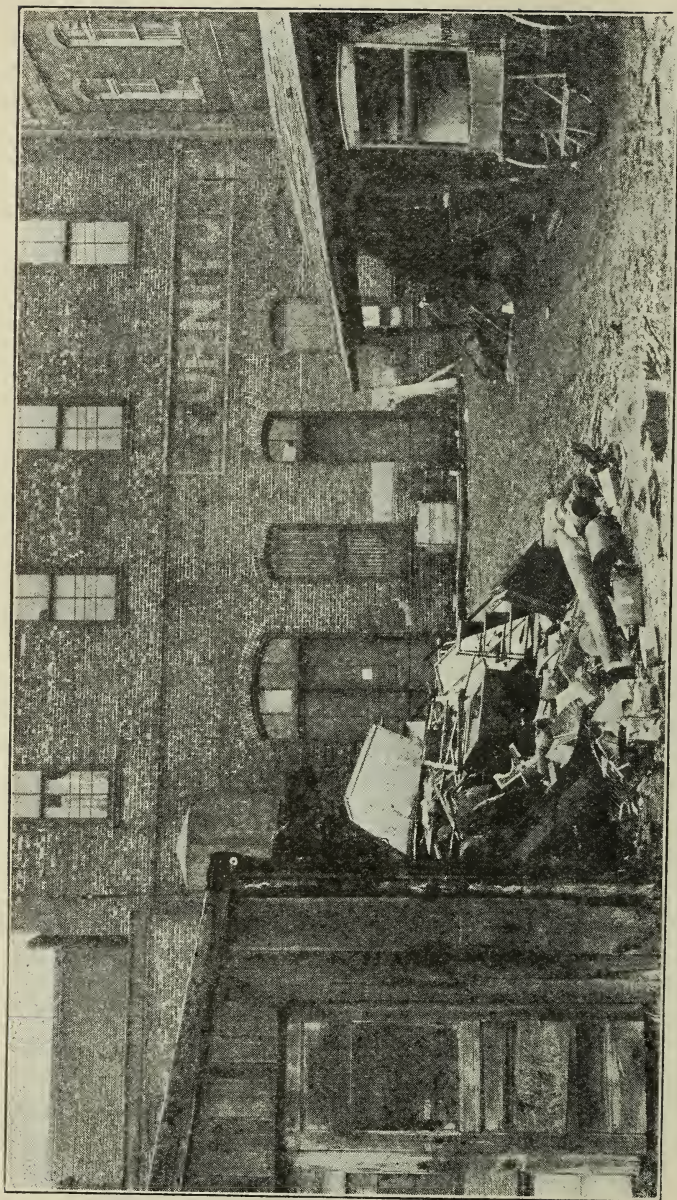
S. L. LEGREID, *Fire Marshal*

There was a noticeable stir in society when the Smiths came to town. They leased an exclusive mansion and furnished it with oriental rugs and luxurious furnishings. They were welcomed at once into the select social circles and entered prominently into church activities.

When the mansion burned to the ground shortly, the whole community sympathized with the Smiths in the loss of their rare and expensive furnishings. Fire insurance companies paid the insurance in full, \$10,000.



Approved gasoline storage above ground. Dike prevents overflow of gasoline in case of break in tank.
Warehouse is corrugated iron over steel frame



Typical rubbish condition back of main street business property. Only a stray match or spark is needed to start costly fire. A civic luncheon club meets weekly in one of the buildings.

In the course of time the State fire marshal learned that some boxes had been shipped from the mansion a short time before the fire. Deputies began checking up. In a Chicago warehouse a quantity of the furnishings was located. Inquiry developed that Smith had a record as a notorious firebug in another state.

A man hunt for six years followed, leading to South America and back, but finally the quarry was taken in Chicago, following a humble trade under an assumed name. He confessed and received a prison sentence.

(This is a summary of a case taken from the fire marshal's files, with the name Smith substituted for the real name.)

Chasing the firebug is one of the important activities of the fire marshal. Not all the cases have the thrills of this one. Most of them are sordid and devoid of interesting detail. Business men reach the brink of failure and burn to collect the insurance. Private citizens burn homes and furnishings to defraud insurance companies. Some fires are set for revenge on persons against whom the perpetrator has a real or fancied grievance. Others are set to cover evidence of a crime, such as murder or robbery. A few are set by a class of insane persons known as pyromaniacs.

Deputies of the fire marshal are busy continuously trying to round up incendiaries and protect the public from their activities. A firebug cares naught whose property may be burned or how many lives may be lost when he applies the torch. Convictions in the last seven years have been as follows:

1921, eleven; 1922, eleven; 1923, twenty-two; 1924, fourteen; 1925, twelve; 1926, nine; 1927, eleven.

During the last few months the fire marshal has organized arson squads in the principal communities of the State to cooperate with him. The personnel is drawn from the police and fire departments, with representation also from civic organizations. These local squads function at once if a fire appears suspicious and get the evi-

dence in hand while awaiting the arrival of a deputy fire marshal. Through this method the fire marshal has a State-wide network with which to enmesh the firebug.

Protecting the School Children

The law requires children of school age to attend school a certain portion of each year. Only a small percentage of the school buildings in Illinois are fire-safe. Many are firetraps, some of them of the worst sort. Yet the children have no choice but to attend and parents are forced by the law to send them.

The fire marshal is using his authority to the utmost to cause school authorities to make their buildings as safe from fire as possible and to provide sufficient means of safe exit in case of fire.

"Every school child is entitled to a safe schoolhouse," is the idea back of a school survey which has been in progress for the past three years. Conditions have been found which would make possible a repetition of disasters which have occurred in other states, with costly loss of life. These the school authorities have been ordered to remedy promptly.

Safe heating equipment, fire-proof boiler rooms, approved electric wiring, safe metal containers for inflammable materials, sufficient exit facilities, adequate fire escape equipment and systematic fire drills are some of the important requirements of the fire marshal.

Rural schools have been covered as well as city schools and it is estimated that there has been at least a 50 per cent improvement in school safety in the last three years. Cooperation of parents is urged by the fire marshal to help get backward school boards into line.

Rockford is a conspicuous example of progress in school safety. During the present summer vacation all schools are being fully equipped with fire escapes to a total of 21, fire doors installed and all electric wiring overhauled. Mt. Vernon schools are also fully equipped with fire escapes.

The same attention is being given to parochial schools as to public schools.

Collinwood, Ohio, sacrificed 175 school children to fire and St. John's parochial school at Peabody, Mass., 22. At Cleveland, S. C., 77 pupils and relatives perished at graduation exercises and 36 died at a Christmas eve celebration at Hobart, Okla., the latter in a typical one room country schoolhouse with but one exit. Illinois wants none of these horrors.

Inspection Service

Illinois' annual bonfire costs more than 20 million dollars. In 1927 it was \$21,961,452, which was the lowest mark in four years. It is the purpose of the Division of Fire Prevention to reduce this loss by eliminating fire hazards.

Deputy state fire marshals travel the State constantly, visiting the various communities and inspecting property other than residence property. If fire hazards or unsafe conditions are found, orders are issued to remedy them. This is a service not only for the property owner or tenant, but for the community, since every fire is the possible source of a conflagration.

The Division has ample power under the law to enforce its orders through court procedure, and does so when necessary. It is the desire, and has been the policy of the Division, however, to bring about compliances by persuasion. Most individuals readily comply when the importance of doing so is explained to them.

Special attention is given to old, dilapidated property, relics of a former generation which have become eyesores and fire hazards. Removal of these through efforts of the Division has made way for the construction of modern buildings in many communities and has created a general improvement in appearances and values.

Another service is rendered communities in the handling of special hazards, such as oil storage and dry cleaning plants. Special rules apply to both of these and are rigidly enforced.

These requirements minimize the hazard to such an extent that nearby property is not penalized with a heavy insurance rate. Without the Division's requirements, whole blocks of property would often be penalized.

Protection of life is given careful attention in the inspection work. Hospitals, hotels, theaters, churches, public halls and other places of a similar nature are required to maintain safe and ample exit facilities as well as control fire hazards.

The Division at this time is trying to rid the State of the great hazard to life which is caused when public garages are located in the same building with public halls, hotels, apartments, etc. Forty persons were killed outright at West Plains, Mo., early this year by an explosion and fire in a garage below a hall in which a dance was being held.

Danger of Gasoline

No less than eight persons were killed in Illinois last year as a result of dry cleaning in the home with gasoline or naphtha.

These liquids are very volatile and the vapors they give off are readily ignited by a small spark. Static electricity, sometimes generated by the rubbing of silks and woollens during the cleaning process, is sufficient to do this. Home dry cleaning, if done at all, should be done out of doors.

A woman, now a resident of Springfield, sacrificed both arms and was horribly maimed about face and body, as a result of using a tub of gasoline to do her spring cleaning of draperies, etc. She wore a woolen dress and it became more or less wet with gasoline. After finishing her cleaning she went to the kitchen and lit the gas stove to prepare lunch. Gasoline vapors from her dress ignited and enveloped her in flame.

Examples of this kind are not at all infrequent.

Firemen's Short Course

One of the greatest accomplishments in this or any other state in the interest of reducing fire losses is the

Short Course on Fire Prevention, Control and Extinguishment, inaugurated in 1925 at the University of Illinois and held annually since that time. Here for four days experts explain and demonstrate all phases of the fire problem, including first aid and life saving. The course is open without charge to all firemen, city officials and to anyone interested in the fire problem. This year a drill tower was erected by the State and the attendance set a new high record. There is a real service by the State to its various communities. Governor Small, the university and the Illinois Firemen's association cooperated heartily in establishing the short course and in securing the appropriation from the Legislature to provide the drill tower. Several other states have followed our lead and have begun short courses.

Aid Given Murphysboro

By direction of Governor Small, the Division took charge of the clean-up of Murphysboro after the disastrous tornado in 1925. It was a gigantic task, as whole city blocks were littered with debris and fallen trees. All of this had to be hauled away and burned. For weeks a fleet of trucks and tractors was kept busy. It looked like an endless job, but organization, plus time and labor-saving devices, soon had it moving with dispatch.

This kind of work is somewhat outside of the activities of the Division, but it was a source of satisfaction to be able to render effective aid to a community in distress.

DIVISION OF STANDARDS

The results attained in the Weights and Measures Department since the organization of the Department, under the Weights and Measures Act in 1921, have been gratifying. The success of the work of this Division cannot be measured alone by the detailed report of the number of weights, measures, and weighing and measuring devices sealed or condemned as set forth in reports from year to year, but also by the restraint there is on the un-

scrupulous dealer who, fearing detection, hesitates to continue his dishonest practices.

This is a work of vast importance which affects all classes of citizens, as the application and the underlying principles of the Weights and Measures Law affect more people than any other law on the statute books. In their many applications, the Weights and Measures Act definitely establishes a link between law and commercial life. The producer, the distributor and the consumer are the three factors in our commercial life and their systems of doing business are dependent upon sound principles. More stress is laid on the enforcement of the Weights and Measures Law, since it affects the class of citizens who can least afford to protect themselves. The principal object of this work is to create a barrier which will overcome temptation to be dishonest.

Under the enforcement of The Weights and Measures Law in this State, all weighing and measuring apparatus have become public utilities which, when operated correctly, weigh accurately for both the tradesman and the purchaser. The fact that a measuring device is usually owned by the seller does not give any special privilege in its operation. Legitimate and honest competition depends entirely upon the protection given by the State in this matter, and anyone who violates these principles immediately becomes a menace to the community in which he lives.

In accordance with the provisions of the Weights and Measures Act, the weighing and measuring equipment at all State institutions maintained by funds appropriated by the State Legislature, has been given the annual inspection and test. Adjustments were made where required, recommendations for replacement of or repairs to apparatus offered in all cases where this was deemed conducive to the best interests of the State in its purchase of supplies, and everything done to bring all State-used equipment up to the required standard of accuracy.

This Department, not being provided with a suffi-

cient amount of test weights with which to test railroad track scales, has adopted the policy of accompanying the inspectors of the railroads who make inspections in the State with test cars provided for that purpose, also to accompany representatives from the Bureau of Standards, Washington, D. C., who are provided with equipment for testing railroad track scales, when making such tour of inspection in Illinois.

Some of the activities of this Department should be enumerated here in order that the public may know of the great scope of the work. All scales, weights, gasoline pumps, measures and weighing and measuring devices are inspected at least once annually and in hundreds of cases much oftener. The reweighing of loads of coal and the commodities in the various stores are important phases of the work and act as a check upon dishonest dealers. The enforcement of the net weight laws is another important undertaking, especially when it applies to foodstuffs put up in package form required by law to have the net weight of the contents of the package marked thereon.

Literature has been published from time to time bearing on the new law, such as copies of the Weights and Measures Act, copies of tolerances and specifications on weights and measures, and weighing and measuring devices, and a pamphlet entitled, "Instructions to Merchants," relative to the care and adjustment of their scales, has been issued, together with information showing the number of pounds per bushel of commodities required to be sold by weight and the capacity of containers for fruits, vegetables and berries when sold or offered for sale by merchants for distribution by the inspectors of weights and measures in their daily routine. A folder has also been issued showing the number of pounds per bushel of commodities required by law to be sold by weight, and the capacity of standard containers for fruits and vegetables, and the capacity of berry boxes, the marking of foods sold in package form, and other valuable information for

the housewife for distribution by household economic departments of Women's Clubs and Superintendents of Household Economic Departments in the various schools in the State.

The routine office work has very materially increased, particularly in the matter of correspondence. Questions are continually being submitted by individuals as well as manufacturers, not only in this State but in other states.

The Department is receiving the cooperation of honest merchants, who realize that the Weights and Measures Law reduces competition among dealers who formerly were apt to cut prices on the basis of short weight.

The annual exhibit at the Inter-State Fair at Kankakee, and the Illinois State Fair, have proved very attractive and interesting to the public, and special effort has been made to acquaint people with some of the most important features of the Weights and Measures Act.

DIVISION OF SMALL LOANS

The Uniform Small Loan Law was enacted by the Illinois Legislature in 1917, and its administration was placed in the Department of Trade and Commerce, where it has since remained, and has become a Division of some importance. In 1921, the first year of Governor Small's administration, this Division was supervising the business of 133 licensed lenders. At the present time 268 licensed lenders are operating in Illinois under the provisions of the Uniform Small Loan Law. The original law was amended in 1925 to permit corporations to engage in the business of loaning money. Following this amendment many of the firms engaged in the business were incorporated. Small loan licensees conduct their business with their own capital, and do not receive deposits.

The Uniform Small Loan Law is sponsored by the Russell Sage Foundation of New York, and has been adopted by many states with beneficial results, both to

lenders and borrowers. Its primary purpose is the protection of necessitous borrowers from the exactions and impositions of unscrupulous money lenders. The Uniform Small Loan Law, in every state where it has been adopted, has practically eliminated the "loan shark". The patrons of small loan lenders are a class of people who would have no credit in a bank, as a rule, yet must, in occasions of unusual stress, borrow money. The small loan lender provides this accommodation, and the state safeguards the interest of the borrower, who may not, at all times, know how to protect himself.

The Uniform Small Loan Law has also resulted in general benefit to the individuals and corporations operating under its provisions. It has elevated their business to a legitimate and law-abiding plane with an acknowledged place in business circles. The Licensed Lenders Association of Illinois is a division in the Chicago Chamber of Commerce. Such is the development of a few years under wholesome and careful State supervision.

Department of Registration and Education

A. M. SHELTON, *Director*

SOUTHERN ILLINOIS STATE NORMAL UNIVERSITY

HENRY W. SHRYOCK, *President*

IN NO LESS marked degree than Eton has left its impress on the education of England, or Heidelberg on that of Germany, the Southern Illinois State Normal University stands as the center of learning and culture in southern Illinois. This State college is the only institution of its class in that great section of Illinois which is known as Egypt.

To its doors have come those who have sought the higher lines of education; they have gone forth fitted to teach the rising generations and through the efforts of the Southern Illinois State Normal University and the teachers trained in this institution the growth of education in the section served has been most advanced.

The greatest period of progress since the establishment of this State school has been during the last eight years. At the beginning of this period the Southern Illinois State Normal University had a faculty of forty-five members; at present there are eighty members. At the beginning of the eight-year period there were none who had worked out the three years of graduate work required for the degree of Ph. D.; for the present academic year there are three to whom this degree has already been granted, with two others completing the residence work required for the degree, and whose final theses have been accepted.

Eight years ago only twelve had attained the master's degree; today there are twenty-six. At the beginning of

the period covered, 130 were graduated from the junior college, but there were no candidates for the degree of B. Ed.; for the school year just ended 397 graduated from the junior college, and degrees were conferred upon seventy-one graduates of the four-year course.

The remarkable advance in educational lines which has been made at the Southern Illinois Normal University during this period is shown in the fact that while accredited only as a "C Class" school eight years ago, it is now recognized as an "A" school by the American Association of Teachers' Colleges and the University of Illinois.

On the purely material side these eight years have seen equally startling developments at the Southern Illinois Normal University. The total revenues for the scholastic period of 1919-1921 amounted to \$141,490. For the present period, without counting the appropriation for new buildings, the sum of \$301,521 has been set aside for the successful conduct of this institution of learning.

The campus has been made more attractive and convenient by the construction of nearly a quarter of a mile of paved and curbed roadway, illuminated so that the drive is almost as well lighted at night as in the daytime. A \$30,000 addition to the power plant has taken care of the heating required for the new buildings. A conservative estimate would place the increase in the chemical, physical and biological laboratories at more than \$30,000, while there has been added more than \$20,000 worth of books to the library.

On this material side, however, the crowning achievement has been the addition of the \$175,000 gymnasium, and the appropriation made by the last General Assembly of \$225,000 for a new chemical and manual arts building, now under process of construction.

"A person who was even indifferent to the success or failure of this institution would have to admit that the story of development recorded in the last eight years is in many ways really remarkable," says H. W. Shryock, president of the Southern Illinois Normal University.

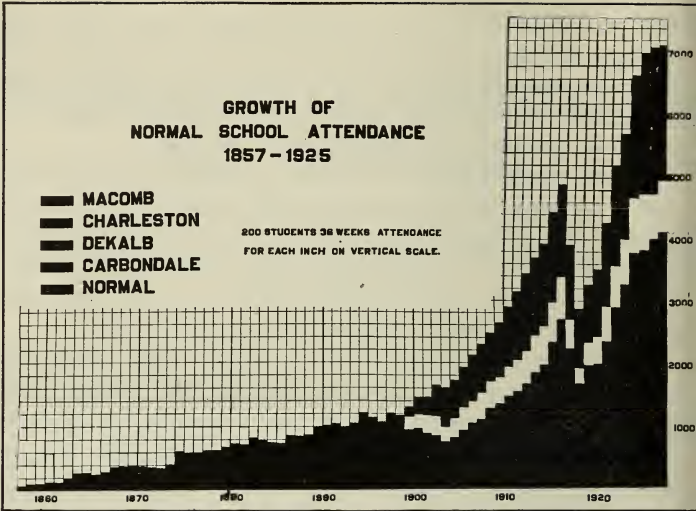
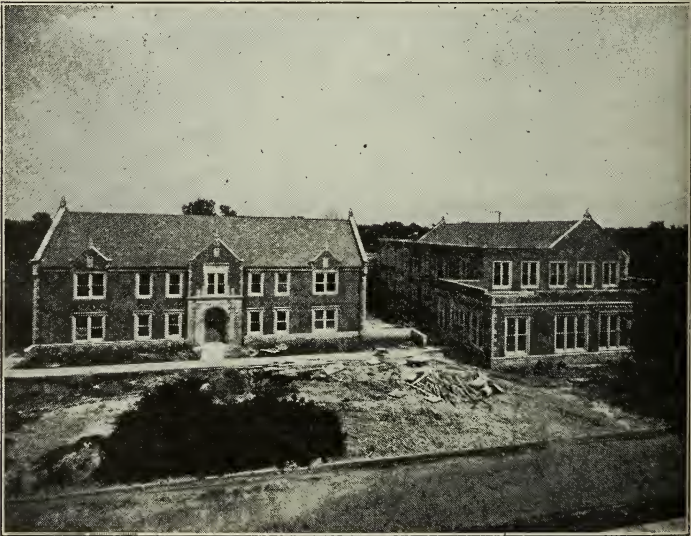


Chart showing how Illinois Normal schools have prospered under Governor Small



Gymnasium and Industrial Arts Buildings, Northern Illinois State Teachers' College, DeKalb

"Just how much of the credit should go to Governor Len Small through these inspiring years, it might be difficult to say, but I am sure the faculty and students of this institution are firmly convinced that such a growth and such a development would have been impossible if it had not been for his sympathetic attitude toward education, and especially toward this institution and its friends in southern Illinois.

"A governor less friendly in his attitude toward us could have prevented any growth in this institution whatever; with an indifferent administration we might have struggled and toiled and only attained a development so slight as to have been disheartening.

"In our preparations for every forward step as planned by faculty, board and student body we have called upon Governor Small for help, and we never once called in vain. In the advancement made at the Southern Illinois State Normal University he has been our co-worker and co-enthusiast."

NORTHERN ILLINOIS STATE TEACHERS' COLLEGE

J. C. BROWN, *President*

Most liberally has the Northern Illinois State Teachers' College shared in the material improvements made in the educational institutions of Illinois during the last eight years.

Regarding the progress made, President J. C. Brown says:

"I am sure that you will be interested to know that the enrollment for the summer term of 1928 shows an increase of more than twenty per cent over the corresponding term of 1927. There are numerous indications that the institution is entering upon a period of growth and of expansion that will enable it to render larger and better service to the schools of Illinois. The college now

has the unqualified support of the superintendents and principals of its area. There is a demand for the graduates, the alumni are united in active support of their Alma Mater, and the spirit of the institution is excellent.

"We are looking to the future with keen anticipation and with confidence.

"The last Legislature appropriated \$225,000 for the erection of a building to house the Department of Industrial Arts and the Department of Physical Education for Men. This building is now being erected just east of the Main Building and it seems probable that it will be available for use at the beginning of the college year in September.

"The Industrial Arts wing will include up-to-date facilities for the teaching of woodworking, cabinet making, mechanical drawing, metalwork and auto mechanics.

"The Physical Educational wing will provide facilities for physical education of men and will include a large gymnasium with a seating capacity of approximately 1,500, locker rooms, shower baths, team rooms, offices and a trophy room. Provisions are now being made for a swimming pool. Whatever funds are available after the building has been completed will be used for the purchase of equipment.

"The new building is located conveniently near the athletic field and should be a factor in attracting more men students to the institution.

"The next largest material improvement made during the eight years of the administration of Governor Len Small, has been the paving of the Lincoln Highway which bounds the campus on the south. The State's share of this improvement was approximately \$8,600. Some of the roads on the campus have also been widened and paved during recent years, adding materially to the beauty of the grounds.

"Extensive repairs to the roof of the Main building have been made, totalling in cost approximately \$8,200.

"The most significant material improvements in the building within the last eight years are: new heating system for the training school, electric lights in class rooms and in auditorium, auditorium redecorated, additions to library stacks, industrial arts equipment, lanterns, slides and maps, and laboratory tables and chemical equipment."

EASTERN ILLINOIS STATE TEACHERS' COLLEGE

L. C. LORD, *President*

Most gratifying has been the progress made during the last eight years at the Eastern Illinois State Teachers' College, located at Charleston, and of which Livingston C. Lord is the president.

In 1919-20 the Eastern Illinois State Normal School was a normal school of the old type, the change in name being made by the State Legislature in 1921. With this change came also a rapid stride forward in the growth and progress of the institution.

As a normal school the enrollment showed 277 students of college rank in the regular school year, together with 734 students during the six weeks summer term. During the regular school year of 1927-28 there was an enrollment of 620 students of college rank, with 1,230 students registered in the three six weeks terms—the mid-spring term, the first half summer term and the second half summer term. The grand total, including the Training School was 2,088.

These figures show an increase of 124 per cent in college students in the regular school year during the eight years; an increase of 68 per cent in the number of summer term students, and an increase of 52 per cent in the grand total, including the Training School.

Up to and including 1920 this institution was fitted to offer but one summer term. At present there are three for the convenience of students—the mid-spring term, the first half summer term and the second half sum-

mer term, the three being equivalent to eighteen weeks work, or half of a regular school year.

"Development of the school as an educational institution during the past eight years is most gratifying," says President Livingston C. Lord. "These eight years have seen the old normal school change to the Eastern Illinois State Teachers' College—a Class A teachers' college in the American Association of Teachers' Colleges and accredited by the North Central Association of Colleges and Secondary Schools.

"The change in name was made by the State Legislature in 1921. The power to grant degrees was given in 1907, but courses leading to degrees were not offered in the institution until within the last eight-year period, starting in 1920.

"On the physical side, a fine new power house, modern and well equipped, has replaced the old one which had been in use for twenty-six years. A new building in which the Manual Arts and Home Economics departments will be housed is nearing completion and will be ready for the school year starting in September."

WESTERN ILLINOIS STATE TEACHERS' COLLEGE

WALTER P. MORGAN, *President*

During the last eight-year-period, enrollment at the Western Illinois State Teachers' College has approximately doubled. For the year 1921 there was an enrollment of 1,695, while for the past year this enrollment numbered 3,267. For the year 1921 sixty-three graduated from the two-year course while five completed the four-year course, or a total of sixty-eight. During 1928, 141 students graduated from the two-year course, with sixty-nine completing the four-year curriculum, a total of 210 for the year.

At the beginning of the 1921-1928 period the Western Illinois State Teachers' College, located at Macomb,

consisted of four buildings, including the main administration building, the women's dormitory, the new arts building and the old heating plant.

Prior to June 3, 1921 this institution was known as the Western Illinois State Normal School, but under House Bill No. 330, which passed as an emergency and which received the immediate signature of Governor Len Small, the name was changed to The Western Illinois State Teachers' College. "This act of the Fifty-Second General Assembly breathed new life into the institution," says President Walter P. Morgan, "and a new era was begun for the institution at Macomb.

"As evidence of progress of the institution, it was first accredited by the North Central Association of Secondary Schools and Colleges, and in March, 1928, fully accredited, not only as a teachers' training institution, but with the same rights for its graduates which accrue to the graduates of any four-year liberal arts college. In this it is one of eight institutions in the United States to which this honor is accorded.

"In February, 1928, this institution was passed on by inspectors of the American Association of Teachers Colleges and was given an "A" classification and placed in Group 1, an honor which is accorded to but twenty colleges in the United States. This is a high recognition in view of the fact that there are some two hundred teachers' training institutions in the United States, of which one hundred and forty-five are members of the American Association of Teachers' Colleges."

During 1923 an appropriation of \$135,000 was made to cover the cost of a new lighting system for the grounds and a new heating and lighting plant. This was the first effort to increase the physical plant since the completion of the New Arts building in 1917. Then followed a remodeling of the old heating plant, paving of one of the streets adjoining the campus and erection of the gymnasium at a cost of approximately \$170,000. The new gymnasium was dedicated on May 21, 1928.

At present plans are under way for a remodeling of the old gymnasium into library rooms, while the last session of the General Assembly appropriated \$41,000 for the purchase of ten additional acres for the campus.

The interest of the State in the Western Illinois State Teachers' College has been reflected in the interest which the student body has taken in the physical plant. This is most strikingly illustrated by the Kappa Delta Pi fraternity which contributed some \$1,500 to build a memorial gate at the main entrance of the grounds. The campus is the pride of every student and every organization in the student body.

ILLINOIS STATE NORMAL UNIVERSITY

DAVID FELMLEY, *President*

President David Felmley of the Illinois State Normal University, located at Normal, points with pride to the advance which has been made by this institution during the past eight years. Without exception that progress is the greatest in the history of the institution.

The number of students enrolled for the regular school year numbered 529 at the beginning of the eight year period. At present this enrollment is 1,557, an increase of 296 per cent.

Authority to confer degrees was given to the Illinois State Normal University in 1907, but only 119 degrees were conferred in the following thirteen years. In the past eight years 499 have received degrees from the institution. In 1920 but thirteen were graduated with degrees from the full four-year course, and ninety with junior college or normal school diplomas. In 1928 a total of 108 completed the four-year course and received degrees, while 402 were presented diplomas. For the past year the enrollment at the Illinois State Normal University numbered 6,558.

The growth in attendance is attributed to three causes by President David Felmley.

(1) The growing conviction among school boards that professional training results in notably better teaching;

(2) The raising of standards by the State Examining Board. A mere high school graduate now finds it difficult to obtain a teacher's certificate;

(3) The increase in the state distributable school fund and the improved method of distribution recommended by the Educational Commission under Governor Len Small, which has made it possible for weak districts to employ a trained teacher and has rewarded districts which employ such teachers.

"The most significant expansion of the past eight years has been in preparing teachers for country schools and teachers of commercial branches and of physical education for high schools," says President David Felmley. "Our regular faculty in 1920 numbered 74. We now have 104, including the teachers of the four rural schools that are affiliated with us as training schools and the teachers of the Soldiers' Orphans' Home, whose school also is included in our training department."

Physical improvements at the Illinois State Normal University completed during the last eight-year period include the erection of a commodious gymnasium at an approximate cost of \$170,000, extension and pavement of drives, laying out of many new concrete walks and installation of a campus lighting system. At present work is underway on a new science building which will be constructed at an approximate cost of \$225,000.

STATE NATURAL HISTORY SURVEY DIVISION

S. A. FORBES, *Chief*

It is the function of the State Natural History Survey Division, as prescribed by the Civil Administrative Code and the Board of Natural Resources and Conservation, to study and report upon the entire field of zoology

and botany in the State, preference being given to subjects of educational and economic importance.

"Under this program," says Stephen A. Forbes, chief of the Division, "recent substantial progress has been made. Following is a summary of the work accomplished:

The State Natural History Survey Division has prosecuted and completed a forest survey of the State, only barely begun in the latter half of 1919, and is now carrying on, in cooperation with the Agricultural Experiment Station, a program of extension and general educational work in forestry.

It has established, organized, and developed a plant disease survey, begun in 1921, the principal object of which is to study the causes of epidemic outbreaks of fungous diseases of the crop plants, which cost the agriculture and horticulture of the State many millions of dollars each year; and to use the knowledge thus acquired to forecast impending outbreaks and avoid their consequences.

It has finished a survey of the plant and animal life of the Illinois river, carried on for many years with special reference to the precise effects of pollution upon the products of the stream and its connected lakes and tributaries; and it has made a similar comprehensive survey of the plant and animal life of the Rock river system in Illinois, covering the whole subject from its microscopic forms to its fishes.

It has continued to expand its work in the several divisions of economic entomology, especially by thorough-going researches into both fundamental problems and practical methods for the prevention and control of insect injuries, with the more important results of which it has made the people of the State generally acquainted by wide-spread publicity and extension work.

It has published during the last eight years its contributions to knowledge on the biology of the State in 39 bulletins, containing 1,937 pages, illustrated by 247 text

figures, 127 plates, and 139 maps, and has distributed its publications freely to the people of the State and to libraries, educational institutions, and investigating specialists throughout the country, and has offered them for exchange to similar institutions throughout the world.

It has published and distributed widely many circulars of information and articles for the press, especially on entomology, forestry, and fishery subjects of unusual importance, and it has begun the preparation of purely educational bulletins and handbooks in its field and has now in press one on the trees of Illinois, a product of the work of its foresters and botanists, assisted by the botanical department of the University of Illinois, and has begun the preparation of a handbook of the flowering plants of the State, amply illustrated by figures of every species.

The three scientific surveys have maintained during the past year a joint publicity agency to the cost of which each has contributed its proportion; but the Natural History Survey has now provided for a full-time publicity and educational service for the coming year, a principal object of which is the preparation of leaflets and booklets restating the products of its operations in terms and forms to make them available for educational use in the high schools and colleges of the State.

These enlargements of the field of the survey and developments of its activities have been made possible by an increase of its appropriations during the last eight years from a total of \$70,495 for the biennium ending June 30, 1919, to \$133,589 for the current biennium.

STATE MUSEUM DIVISION

A. R. CROOK, *Chief*

"In reviewing the work of the State Museum during the eight years of the administration of Governor Len Small, one must be impressed with the progress which this institution has made," says A. R. Crook, Ph. D., chief of the Division.

"At the beginning of the present administration this Museum was housed in the State Arsenal where exhibits were crowded in three unattractive rooms and the gallery of the auditorium. The quarters were unsightly, inadequate and unsafe.

"Contrasting to this, the Museum is now housed in one of the most beautiful buildings in the State, occupying all of the fifth, the sixth, mezzanine floor and two rooms in the basement of the Centennial Building, a total of about 40,000 square feet of floor space. It is supplied with attractive cases and furnishings. The exhibits have about doubled.

"Thus, within the administration of Governor Len Small, the Illinois State Museum has changed from a poorly housed exhibit to one of the best housed museums in the United States.

"During the year covered by my first report under the present administration, July 1921-1922, the Museum extended its influence by participation in the Chicago "Pageant of Progress" where we put up a series of exhibits to illustrate progress in museum methods, in taxidermy, in human anatomy since early geological times, in lighting, etc.

Several important additions were made to the permanent collections, such as the Savillah Wyatt Latham collection of baskets; a collection of baskets from the United States National Museum; a collection of minerals from Tennessee—marble, phosphate rock, and copper ores and a collection of materials from the Cahokia mounds, in whose excavation the Museum had a part.

"The following year, July 1922-23, was devoted largely to preparation for moving. Many thousands of minerals, rocks and fossils were washed, carefully wrapped and packed for moving. Two thousand birds were renovated, placed on uniform mountings and packed. Altogether in the neighborhood of two hundred thousand objects were to be moved—some of them of great weight, others of great delicacy and requiring most careful handling.

"Actual moving was begun on June 25, 1923, and was pushed rapidly forward in as economical manner as possible in spite of unfavorable conditions such as lack of elevator service, absence of telephones, absence of locks on doors and guards to protect the materials which were being moved.

"In August, 1923, an exhibit at the Chicago 'Pageant of Progress' was again made. That year chief attention was given to anthropology. During that year also, Congressman Richard Yates secured for the Museum, a Fokker air plane and Congressman L. E. Wheeler secured a Curtis two-seated observation plane used in instructing aviators during the war.

"During the remainder of the year (1923-24) covered by the seventh annual report, moving was continued and the work of installation was carried on as rapidly as possible. After the last of the six groups of mammals, once abundant in the State of Illinois but now extinct, had been installed in the basement, work on the Payne group of wild flowers, native in Sangamon County, representing "Illinois in May" was carried on.

"During the year, July 1924-25, (eighth annual report) the Chief secured additional mineral collections in New Mexico and Arizona, such as cave materials from the Carlsbad region, fossil stumps from the petrified forest of Arizona and a series of rocks from the Grand Canyon to illustrate world history. Nearly thirteen hundred ornithological specimens were added. An expert conchologist was secured to work with the shell collections.

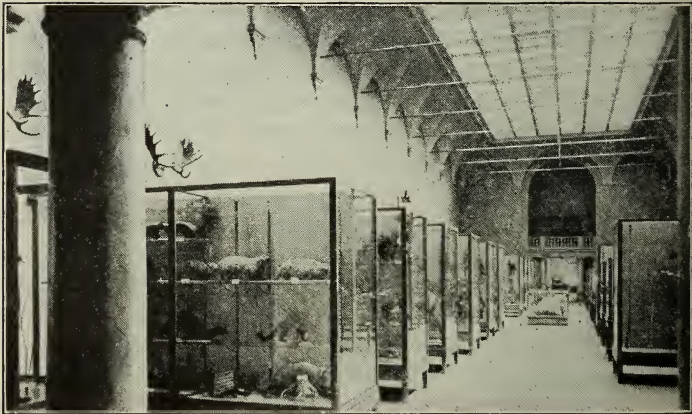
"Additional work was taken on at the State Fair Grounds where ten thousand square feet of space was made available for showing household and farm implements used by early white settlers in Illinois and many other objects for which there is no room in the Centennial Building.

"The Museum staff worked diligently at the preparing and labeling of these objects. This is a fortunate

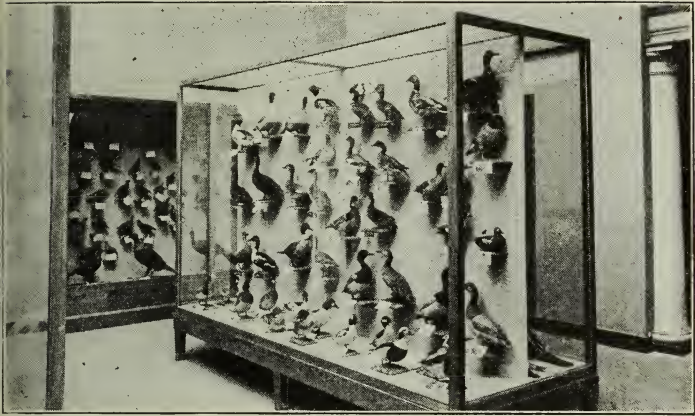
arrangement since it permits the Museum to accept many valuable gifts for which otherwise no space could be found.



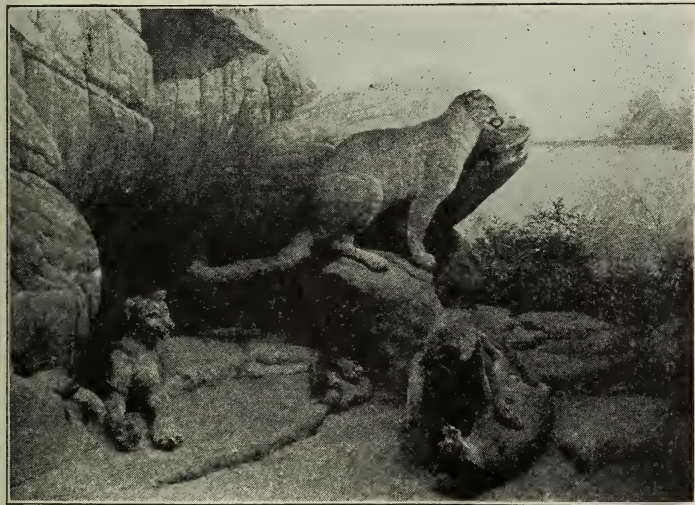
Mushroom exhibit, Illinois State Museum



Main hall, Illinois State Museum



A case of Illinois ducks, Illinois State Museum



Mountain lion group, Illinois State Museum



Buffalo group, Illinois State Museum



Moose group, Illinois State Museum

"The Illinois State Academy of Science held a most successful meeting at the Museum. As a member of the National Association of Museums, the Chief had the opportunity of serving on a committee whose function it was to further the establishment of museums in National parks. The sum of eighty thousand dollars was secured and with that sum a building was erected in Yosemite Valley, exhibits installed and service begun, all within less than one year's time.

"During the year, July 1925-1926, in addition to the routine work, attention was given to the installation and labeling of the thousands of minerals which show the uses that Illinoisans make of the mineral resources, not only of the United States, but of the world.

"Further attention was given to the arrangement, classification and labeling of the forestry exhibit.

During January of 1926, the Chief had the good fortune to excavate the best example of the elephant family ever secured in the State of Illinois, the Golconda Northern Hairy Mammoth. The Frank R. Grover collection of guns, pistols and swords was worked over, catalogued, labeled and put on exhibition at the State Fair Grounds.

"In the year, July 1926-1927 (tenth annual report) much progress was made in the labeling of the general collections which now renders it possible for visitors to see about ten thousand different objects. At the Fair Grounds, a collection was begun to show the evolution of dress in the State of Illinois since 1818. This collection has a dress made in the style of 1818 and contains the gowns worn by several of the former governors' wives at the inauguration of their husbands or on other festive occasions. Among the list are dresses worn by the wives of Governor Richard Yates, the elder, Governor John R. Tanner, Governor Richard Yates, Jr., Governor Edward F. Dunne, Governor Frank O. Lowden. Others have been promised. The dress worn by Mrs. Lincoln at the inauguration of Abraham Lincoln as president also is shown.

"In November, 1926, a positive forward step was taken when the first annual exhibit of works of art of Illinois artists was opened in the Museum and continued until January, 1927.

"During the year, July 1927-1928 (eleventh annual report) a second annual art exhibit was held. Many thousands of people greatly enjoyed the three hundred beautiful paintings and statuary which comprised the finest and most extensive collection of art objects ever brought to the State Capitol. As a result of this movement, people of artistic taste and of means have made contributions to the Illinois Academy of Fine Arts enabling that organization to make gifts of paintings and statuary to the Museum. Twelve pictures and statues have been received this June.

"Artists, lovers of art and the people generally are greatly indebted to the Governor during whose administration this forward step was taken.

"The inauguration of a permanent gallery of art for Illinois artists means a forward step in the culture of the State."

STATE GEOLOGICAL SURVEY DIVISION

M. M. LEIGHTON, *Chief*

From January 1, 1921 to January 1, 1928, Illinois has produced approximately \$1,711,093,951 worth of minerals, an average of \$243,013,421 per year. In this the State bears the distinction of surpassing forty-one other states in the Union in mineral production.

It is generally recognized that civilization cannot rise on food production alone, but it must have those mineral substances which enter into power distribution, manufacturing of a great complex of commodities, rapid transportation, and health-giving recreational facilities. So long as Illinois produces more than its quota of these things, it will continue to maintain its place of State leadership in the Nation.

During the administration of Governor Len Small, beginning January 1, 1921, attention has been in no small way directed to investigations of the natural resources of the State. For the eight-year period the General Assembly has appropriated for geological investigations the sum of \$542,535. During the same period there has been appropriated \$370,000 for the making of topographic surveys.

For the purpose of providing information essential to an intelligent and adequate development of its mineral resources, the State Geological Survey Division has maintained, with the above appropriations, a well-rounded program of scientific studies. The following statements summarize the accomplishments of this Division in its assigned Technical work:

Coal: (1) Publication of a bulletin giving authoritative information on the coal resources of western Illinois; (2) publication of over 1,000 analyses of coal beds from all of the producing districts of the State; (3) two bulletins on areas underlain by strippable coal; (4) information for mining engineers and operators on the structure of the coal beds of northeastern Williamson and western Saline counties, and near Duquoin; (5) a bulletin giving the percentage of coal resources left in the ground by present methods of mining in the different mining districts of the State.

Oil and Gas: (6-23) Seventeen bulletins and pamphlets on the oil and gas possibilities in east-central Illinois, the Allendale field, eastern Clark County, Centralia area, Sorento dome, Ayers anticline, Sparta area, Ava-Campbell Hill area, central Pike County, Adams County, Alexis area, Galesburg area, and Media anticline, and the Mississippi Valley area; (24) a pamphlet giving a testing plan for determining oil structures; (25) a paper on the significance of carbon ratios of coal beds with respect to oil and gas resources; (26) a pamphlet on prospecting in pre-Pennsylvanian formations; and (27) a pamphlet on corrosion in eastern Illinois oil fields.

Fire-clays: (28) A bulletin of 149 pages embracing both the Coal Measures clays and the clays of the area south of the coal field.

Limestone: (29) A bulletin of 392 pages dealing with all of the State's limestone resources with results of tests for road-building and other purposes, and (30) a pamphlet on limestone for sewage filter beds.

Glass sand, steel molding sand, etc.: (31) A bulletin of 175 pages on the economic resources of the St. Peter sandstone formation, and (32) a bulletin of 183 pages on the molding and resources of Illinois.

Fuller's earth: (33) A pamphlet on the fuller's earth deposits of southern Illinois, including a description of three newly found deposits.

Ground water resources: (34) A bulletin of 44 pages on the stratigraphy and structure of northern Illinois with special reference to ground water supplies.

Land Drainage: (35) A bulletin of 322 pages with a large map, providing information regarding the status of drainage reclamation in the State, engineering problems of land drainage, and the organization of drainage districts.

Detailed areal investigations of all mineral resources: (36-49) Publication of bulletins covering approximately 2,750 square miles and including the Avon, Canton, Carbondale, Dixon, Edgington, Equality, Good Hope, Joliet, Kings, La Harpe, Milan, and Shawneetown areas. Field work has been completed or is in progress for approximately 5,000 square miles more, and bulletins will be issued in the near future.

Fundamental work in stratigraphy and paleontology: The determination of key beds which are the basis for detecting and outlining oil and gas structures, and the correlation of formations in various parts of the State which is fundamental to estimating the State's mineral resources and developing its water supplies, have been emphasized and promoted by State-wide studies in the stratigraphy and paleontology of the (50) Silurian,

(51) Mississippian, (52) Pennsylvanian, and (53) Pleistocene systems.

(54) The base map of Illinois and (55) the directory and map of the mineral industries of the State have been revised and published.

(56) A new educational series of pamphlets for the public schools and educated laymen on the geology of the State, (57) a press bulletin on oil and gas, known as "Illinois Petroleum", for the oil and gas industry, and (58) a new technical series known as Reports of Investigations, for presenting advance summaries of findings, have been initiated. During the period under consideration the State Geological Survey has printed a total of 4,518 pages of technical information, on the subjects mentioned in the foregoing paragraphs.

(59) The preparation of basic topographic maps of the State, in cooperation with the U. S. Geological Survey, has gone forward with the achievement of 14,077 square miles of sketching, 5,383 miles of primary leveling, establishment of 1,431 elevation bench marks, and 4,489 miles of primary traverse. This is the equivalent of all that had been done during the previous 16 years of existence of the Geological Survey. This mapping has been used by the State Highway Division in securing shorter locations and better grades in the rougher areas of the State, necessitating shallower cuts, smaller fills, and fewer bridges. In addition the maps have aided municipalities in planning sewage disposal, water and gas distribution, city planning, and other engineering projects fundamental to the comfort and welfare of their citizens, and have promoted the development of the State's resources of minerals, poorly drained lands, and public parks.

BOARD FOR VOCATIONAL EDUCATION, DIVISION OF REHABILITATION

A. M. SHELTON, *Chairman*

The Act in relation to Vocational Rehabilitation of injured persons was approved by Governor Small on June 28, 1921. This Act provided for the acceptance of the provisions of the Federal law for civilian Vocational Rehabilitation, and designated the Board for Vocational Education as the administrative agency.

The purpose of the law is to rehabilitate persons disabled through industrial or public accidents, disease or congenital causes; that is to say, persons who have suffered injuries that disqualify them for employment are subject to the benefits of the law. Such persons are made fit to engage in suitable work either through an adequate training program or otherwise.

In the beginning there was no one available who was familiar with this kind of work, consequently the first two years were spent largely in experimentation, research and training of personnel, but from that time on the work has progressed at a satisfactory rate.

The following table will give some idea of its growth. It is expected that the Division will show a greater number of rehabilitated cases this year than for any preceding year.

Year.	Funds expended.	Persons rehabilitated.	Per capita cost.
1922.....	\$ 21,679.48	7	\$3,097.07
1923.....	137,756.16	133	1,035.76
1924.....	121,476.97	319	380.80
1925*.....	96,370.95	185	520.92
1926.....	143,178.89	472	303.31
1927.....	144,678.27	417	346.95

* In 1925 Federal allotment did not become available until in December and the Division could not operate on State funds until the Federal money was received, hence about one-half of the year was unproductive.

Since this is an economic measure and not an act of charity, its success or failure must be judged by the ability of the State to restore the handicapped person to nearly the normal earning capacity he would have enjoyed had he not suffered the disability. While not all persons aided are actually subsisting on charity at time of contact, a large number of them are, and certainly all of them are potentially charity cases and would probably become charges upon public or private philanthropy.

The best available figures indicate that it costs a minimum of approximately \$300 per annum to support an individual in an institution. The average age of the cases under this Division is 33 years. It would seem to be conservative to estimate that they would have a life expectancy of 20 years. Therefore, assuming that it costs \$300 per year to maintain an individual and that he lives 20 years, he is a \$6,000 liability to society.

During 1926, a total of 472 persons were rehabilitated and placed in remunerative occupations at a total cost of \$143,178.89 or a per capita cost of \$303.31 which includes the entire expense of the Department for the year, spread over the rehabilitated cases only.

The average actual expense for each rehabilitant was \$248.83, which does not include administrative expense of the Department.

A study of the results obtained is illuminating and proves beyond any question the great economic value of the work.

The 472 persons had an average annual earning of \$1,004.76 before injury, which dropped to \$310.20 after injury, and at the time of survey, but was increased to \$1,341.36 after rehabilitation service was rendered. These individuals have an earning capacity of \$336.60 more after receiving rehabilitation service than they had before injury and \$1,031.16 more than they had while in the handicapped condition.

Of the 472 cases, 402 had previous employment experience and the annual average earnings of these 402

persons was \$1,179.72 before injury but had been reduced to \$345.48 as the result of their handicaps, while after rehabilitation was rendered, their earnings increased to \$1,374.84 per annum.

These individuals were not only restored to their original earning status, but they now enjoy an earning capacity of \$195.12 more per annum than they had before suffering their disabilities, and \$1,029.36 more than while in the handicapped condition.

These results are only for one year. Again assuming that the individual lives for 20 years and maintains his earning power, we find the net total gain in earning capacity to be 20×1029.36 or \$20,587.20 each. Add to this the \$6,000 that he would otherwise cost society and we arrive at the net return on the \$303.31 expended by the State for rehabilitation.

DIVISION OF REGISTRATION

V. D. MICHELS, *Superintendent*

The administration of laws pertaining to the licensing of trades and professions in Illinois is vested in the Division of Registration. Licenses are issued by this Division, and enforcement of laws is one of its major functions.

Licenses and renewals to the number of 125,000 annually are issued by the Division. A small fee is charged for each. The size of the fee is only nominal, but in the aggregate the amount taken in is enough to pay all expenses of operation of the Department and to leave a surplus to be turned into the State treasury. At the end of the fiscal year concluding June 30, 1928, \$150,000 in excess of operating costs for the year was so turned in.

The progress of the Department is visualized by comparing this with the fact that in 1920 only \$38,000 was earned by the Department. Under Governor Small's administration the Department was self-sustaining, and annually was made to show an increasing profit to the State.

Governor Small should be given credit for approving several legislative amendments to the license laws. Additions to the Barber, Architecture, Chiropody, Embalming, Optometry and Pharmacy Laws have proved of great benefit both to the professions affected and to the public. The advancing of standards operates profitably in two directions.

Three new laws have been placed on the statute books, two of which have proved highly successful through actual operation. The third is in process of release for operation. They are as follows:

The Beauty Culture Act, providing an opportunity for many women to earn an honest livelihood in an intelligent manner.

The Real Estate Act, which has safeguarded the public from curbstone brokers and wildcat colonization schemes and effected the return of thousands of dollars to the defrauded public through hearings conducted by the Department. The established ethics in relation thereto makes Real Estate a safe investment, interesting property holders in civic movements.

The Public Accountancy Act, now in the process of release for complete operation. It is hoped by this law to greatly benefit economic conditions.

The professions represented by this Department form distinct groups, who under police power, directed by their ideals, perform service and protection to the public.

WATER SURVEY DIVISION

A. M. BUSWELL, *Chief*

In looking back over the last eight years we note gratifying progress in the work of the State Water Survey.

The survey of the ground water resources of the State has been brought up to date and the data published in a volume of seven hundred and ten pages. To describe this volume adequately would require too technical a discussion for the present purpose. Its value may perhaps be gauged from the fact that it has been

conservatively estimated that it would cost a quarter of a million dollars to duplicate the work reported in this bulletin at ordinary commercial rates.

The study of surface water resources, especially such sources as would be available for small town supplies, had been entirely neglected until their investigation was taken up three years ago by the State Water Survey.

Increasing demands for soft, palatable, as well as safe, public water supplies has necessitated a complete reinvestigation of the chemistry of water treatment. This work was undertaken in 1921 and the results published in 1926 in a bulletin of 135 pages.

Probably the most important progressive step taken in the last eight years has been the establishment of an experimental plant for the study of water and waste treatment problems. Experiments had been carried on in this field since 1914 but it was not until 1923 that definite and adequate provision was made for this line of work. Through a cooperative agreement with the University, a building was constructed by the State Water Survey on the University grounds and equipment installed which makes it possible to carry on experiments on a sufficiently large scale to furnish results capable of practical application. The work of this experimental plant has received wide recognition. In fact it was recently mentioned as a model before the British Institute by Mr. Arthur J. Martin in a paper entitled "The Need for Research in Connection with the Purification of Sewage". The results of these researches are appearing in several current bulletins of the State Water Survey.

One of the most important scientific and economic problems of the State is the condition of the Illinois River. The establishment of a laboratory at Peoria in 1923 makes permanent provision for the study of that problem.

A general State-wide survey of stream pollution has been completed and the results published in a bulletin which is being used as a guide by the Isaak Walton League in their anti-pollution campaign.

Department of Purchases and Construction

LESLIE SMALL, *Director*

IN CREATING the Department of Purchases and Construction, during the 54th General Assembly, the Legislature defines the duties of the Department through each of its important Divisions, briefly, as follows:

Waterways. To exercise the rights and powers of the "Canal Commissioners," the Rivers and Lakes Commission of Illinois and the Illinois Waterway Commission.

Architecture and Engineering. To prepare plans, sketches and estimates for the public buildings to be erected for any department, and to construct and repair such buildings and to have general supervision over such work.

Purchases and Supplies. To procure and supply all furniture, general office equipment and supplies needed by the departments; clothing, instruments, apparatus, subsistence and provisions for charitable, penal and reformatory institutions; beds, bedding, cell equipment, table and kitchen equipment, machinery, work shop and other supplies, when other departments are not authorized to do so.

Printing. To exercise the rights, powers and duties vested in the Superintendent of Printing, his officers and employees.

With the aid of a capable and efficient Division Head and a complete organization in each Division, this Department has endeavored to carry out the "Governor Small Policy," that a dollar's worth of value be received

for every dollar expended. Open, competitive bidding on all construction contracts, materials and supplies of all kinds, as outlined by law, has been strictly adhered to, and the lowest responsible bidder has invariably secured the contract.

The Waterway and Building programs are the most extensive ever attempted. If the work is not interrupted, and the present rate of progress is maintained, another two or three years will see the completion of the great Illinois Waterway, connecting the Great Lakes with the Gulf of Mexico. Our educational, charitable and penal institutions are being improved with modern, sanitary buildings that will adequately provide for the increasing population of these institutions.

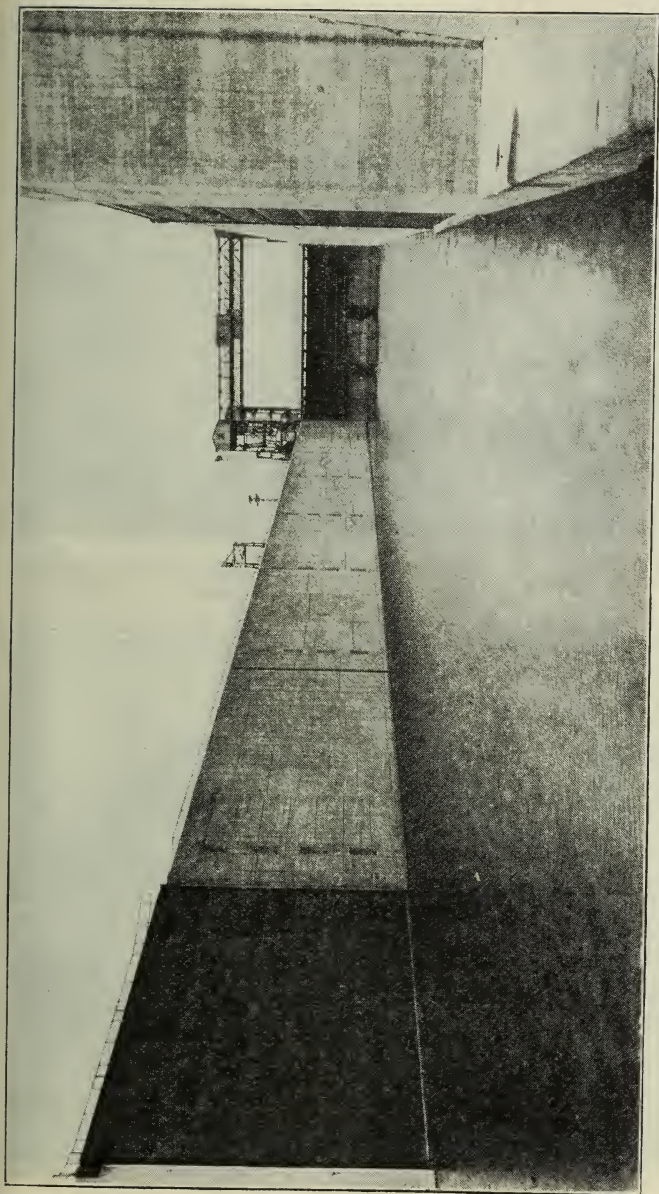
DIVISION OF WATERWAYS

WILLIAM F. MULVIHILL, *Supervisor of Illinois Waterway Construction*

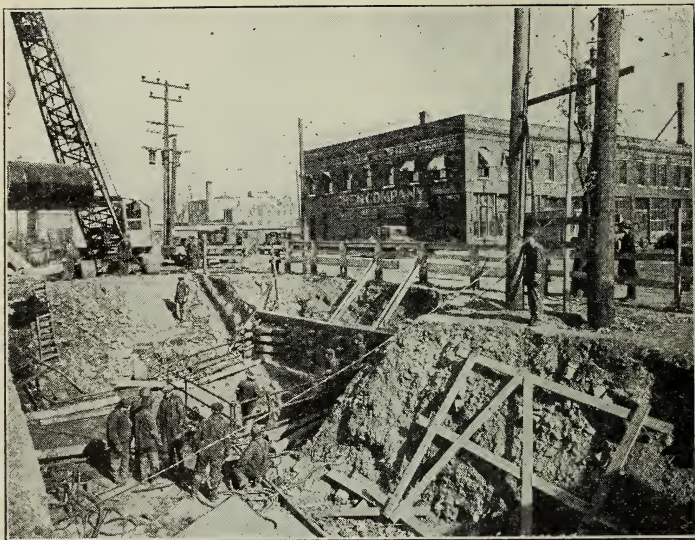
Over 300 years ago Père Marquette and Louis Joliet dreamed of a time when the waters of the Great Lakes would be connected through an adequate navigable channel with the waters of the Illinois River and the Gulf of Mexico by way of the Father of Waters. It remained for Governor Len Small and the people of Illinois through this Division to build the Illinois section of the Lakes-to-the-Gulf-Deep-Waterway and thus to translate the dream of centuries into the reality of actual construction.

Transportation Rules the World

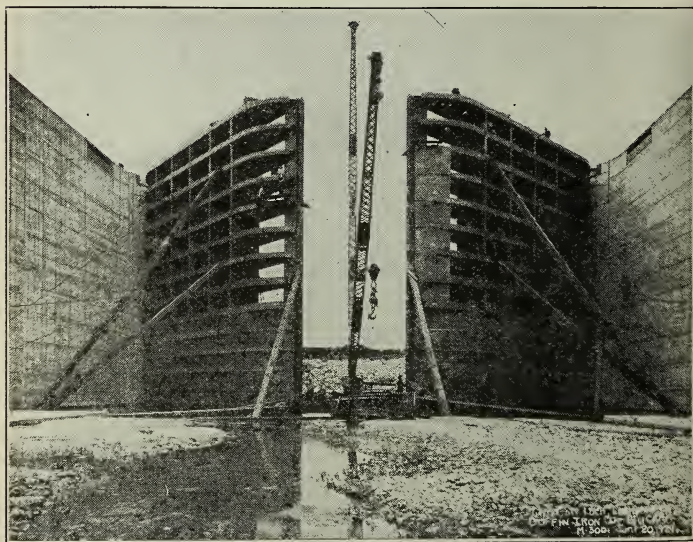
The business of transportation of persons and things is perhaps the world's greatest industry. The demand for more and better and cheaper transportation has led to the greatest engineering development. Wind and water, electricity and steam, machinery and power, have all become the servants of man in the development of civilization.



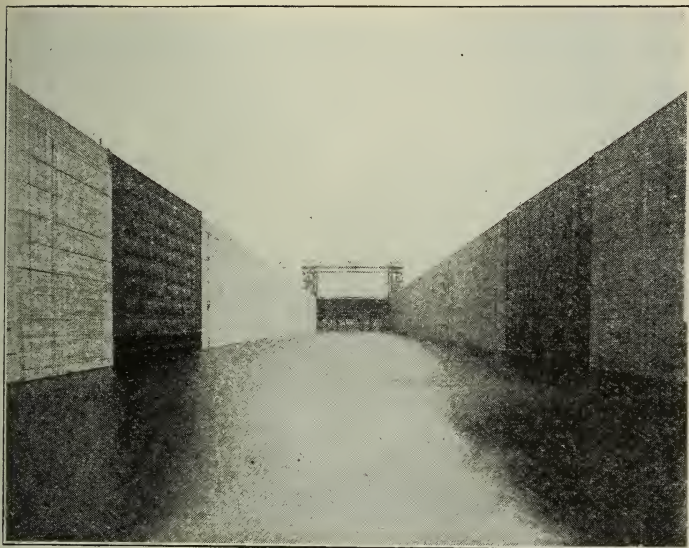
This photograph gives some idea of the size of the Lockport lock of the Illinois Waterway, whose "lift" of 41 feet is the greatest in the world



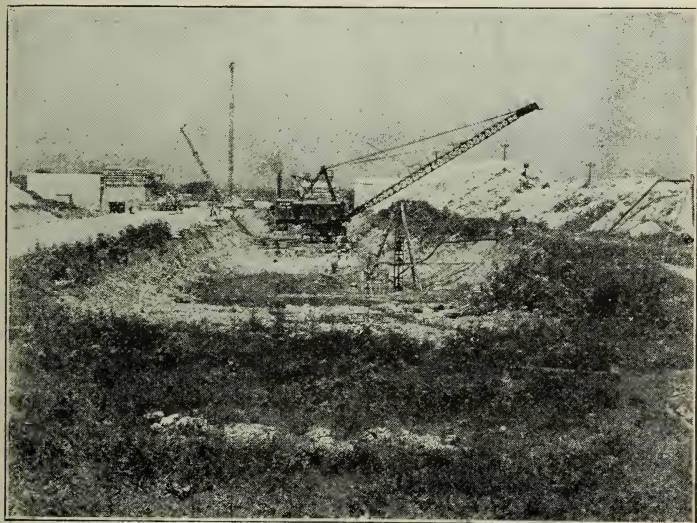
Mouth of tunnel which is to carry utilities 75 feet under the Des Plaines River at Joliet



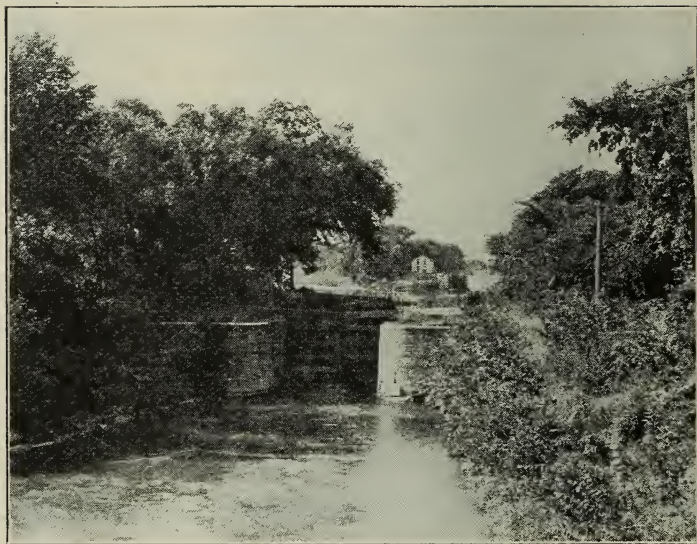
The highest lift lock gates in the world at Lockport



Interior of the Lockport lock of the Illinois Waterway, showing lower gates recessed in walls



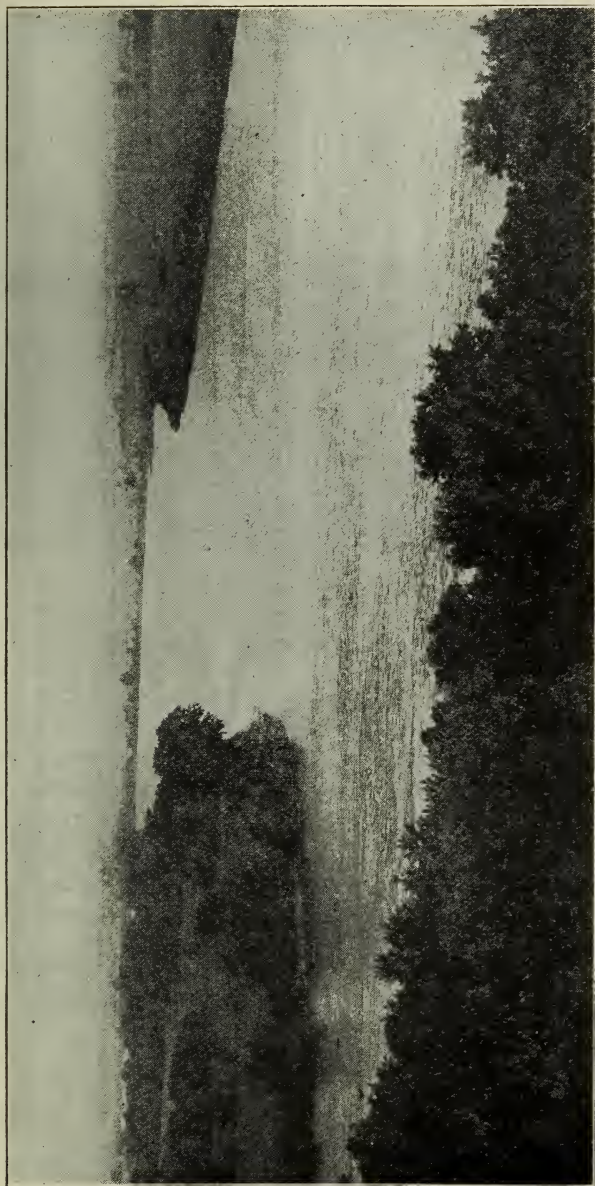
Giant steamshovel at Brandon Road



Picturesque lock in old Illinois and Michigan canal at Channahon
Transportation rules the world. The history of its development is the story of the advancing march of civilization.

Waterways and highways have always determined the location of colonies, the creation of new communities and the increase and utilization of the public wealth.

Our internal history is a romance of transportation; of trapper's trails and corduroy roads across the marshes; of the evolution of wagon roads and bridges; of canals and railroads; of telegraph, telephone and pipe lines; of motor trucks and the miracle of aeroplanes; the wedding of the waters of the Atlantic and Pacific oceans at Panama; the turning of the Chicago River upstream; the digging of the drainage canal, and now the construction, by Governor Small, of the Illinois Waterway, the connecting link for transportation between the Great Lakes and the Gulf of Mexico.



Scene of the Dresden Island lock of the Illinois Waterway at the confluence of the Des Plaines River (left) with the Kankakee River, where the great Illinois River (right) is formed .



Construction work at Brandon Road

Water Transportation Is Cheapest

We stand, not for the development of waterways alone, but for the improvement and utilization of every method of transportation which will conduce to the cheap and expeditious delivery from producer to consumer of those products of nature or industry which contribute to the welfare and enjoyment of the American people. These include transportation by water and rail, by highway and airway. But transportation by water is by far the cheapest method of moving large quantities of freight from one place to another, that has so far been developed or proposed. For example, one dollar will carry one ton of freight the following distances :

- 4 miles by horse and wagon,
- 20 miles by truck,
- 100 miles by railroad,
- 300 miles on New York Barge Canal,

500 miles on European Canals,

750 miles on the Illinois-Mississippi Waterway,

The "Erie" and "I. & M." Canals

1000 miles on Great Lakes boats.

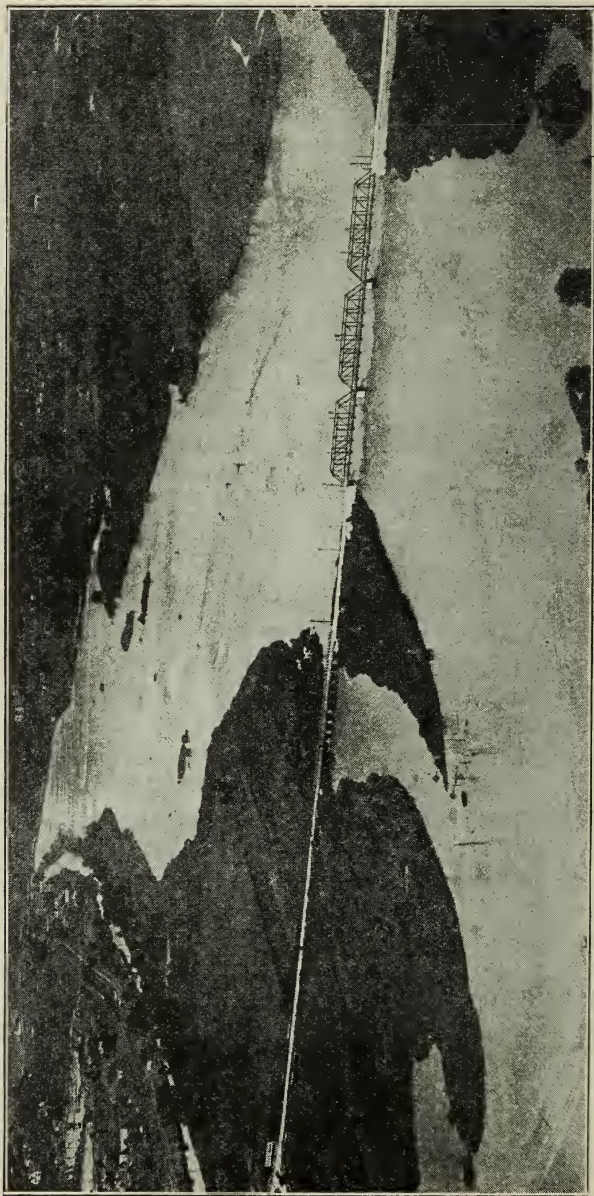
Since the days of the Revolution, Congress has been confronted with the problem of water connections between the Great Lakes and tidewater ports to the East and South.

Early in the nineteenth century the State of New York partially solved the problem of an Eastern outlet to the Atlantic by construction of the Erie Canal from the Hudson River at Albany to Lake Erie at Buffalo.

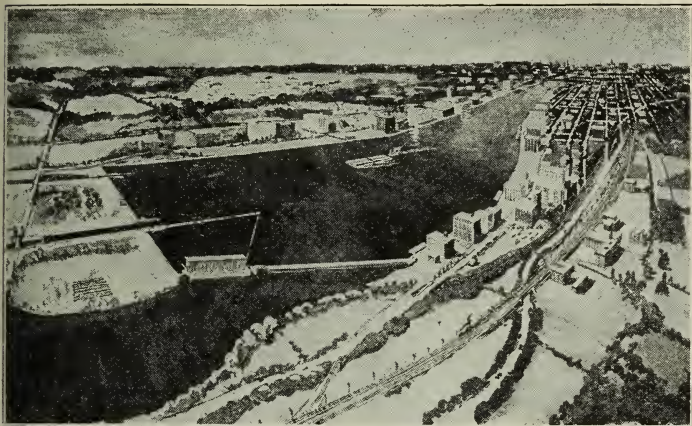
In like manner the Illinois and Michigan Canal from Chicago to LaSalle on the Illinois River was constructed by our State with the aid of the Federal Government which granted a right of way through the public lands and also large tracts to be sold to help defray construction costs. It served the navigation needs of its time and was a potent factor in the development of the State, saving many times its cost in reduced transportation charges.

The Illinois and Michigan Canal is still maintained and is usable for boats of 3½-foot draft, not exceeding 100 feet in length or 16 feet in width. But in the early days of the last century, like other canals of its type, utilizing slow moving, animal-drawn barges, of 100 tons capacity, it largely went out of use as a practical means of transportation, giving way to the railroads which stretched their tracks to every part of the State and could serve the people more cheaply.

Transportation demands have now outgrown our railroad facilities and again the people are asking Congressional action in aid of inland waterway improvement—cheap transportation, adequate channels, gigantic locks and modern barges. Due to the modern constructive ideals of Governor Small, the waterway needs of the present situation will soon be met.



Air view of the Brandon Road Lock site, taken before work was begun. The cost of lock, dam, retaining walls, bridges, pool, dredging and other work will amount to approximately \$5,000,000, and it will take about three years to complete the project



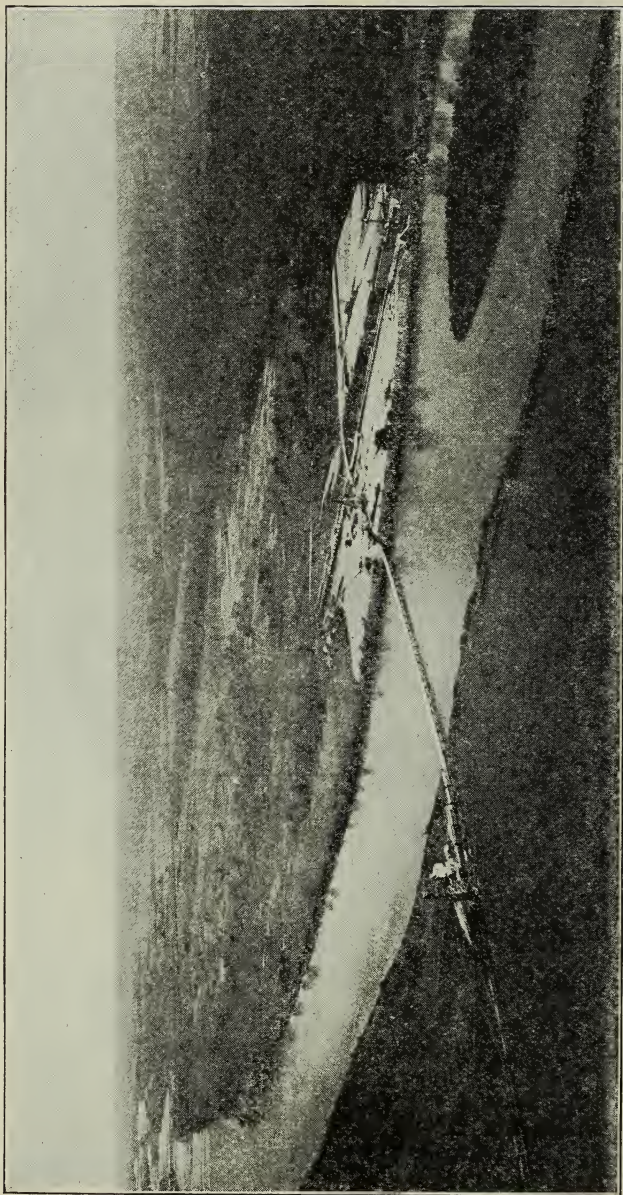
Artist's conception of how the Brandon Road Waterway lock will look when completed, showing lock to left, with breakwater, power plant, dam, turning basin and retaining walls running upstream through Joliet

The Chicago Sanitary and Ship Canal extends from Chicago to Lockport. It is 35 miles long, 21 feet deep, 160 feet wide, and was opened in January, 1900. Its primary purpose was to reverse the flow of the Chicago River and thus to divert the sewage from Lake Michigan and prevent pollution of the water supply of the city. But the value of this canal as an integral part of the Lakes-to-Gulf Deep Waterway was not overlooked. It constitutes the summit level of the entire system and has cost the people of the Chicago district upwards of \$75,000,000.

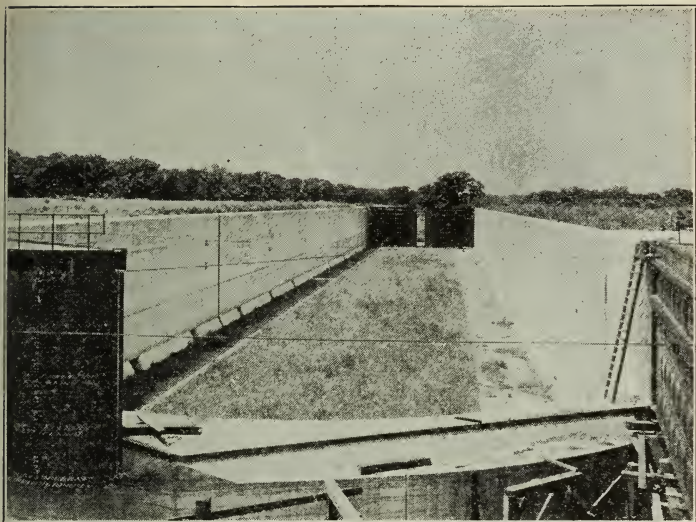
Great Progress Made Under Governor Small

During the administration of Governor Len Small more progress has been made in the development of our inland waterways, Lakes-to-Gulf and Great Lakes-Atlantic, than during the entire history of the State prior to his taking office.

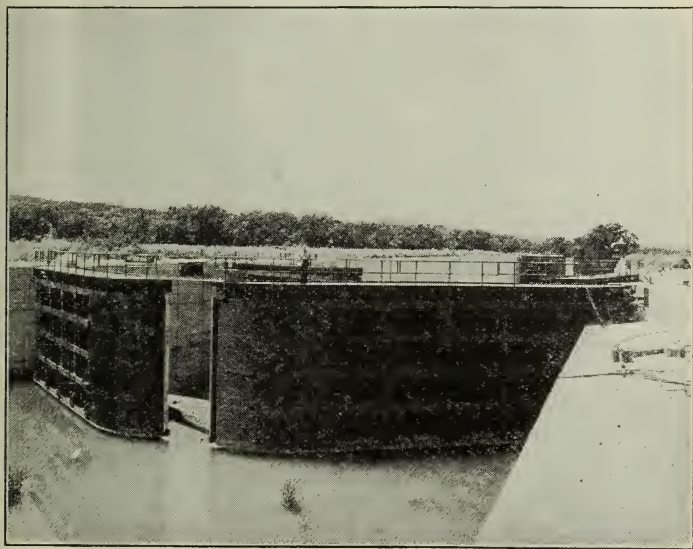
Under his direction, five gigantic locks, each 110 feet wide and over 600 feet long, are being constructed by the



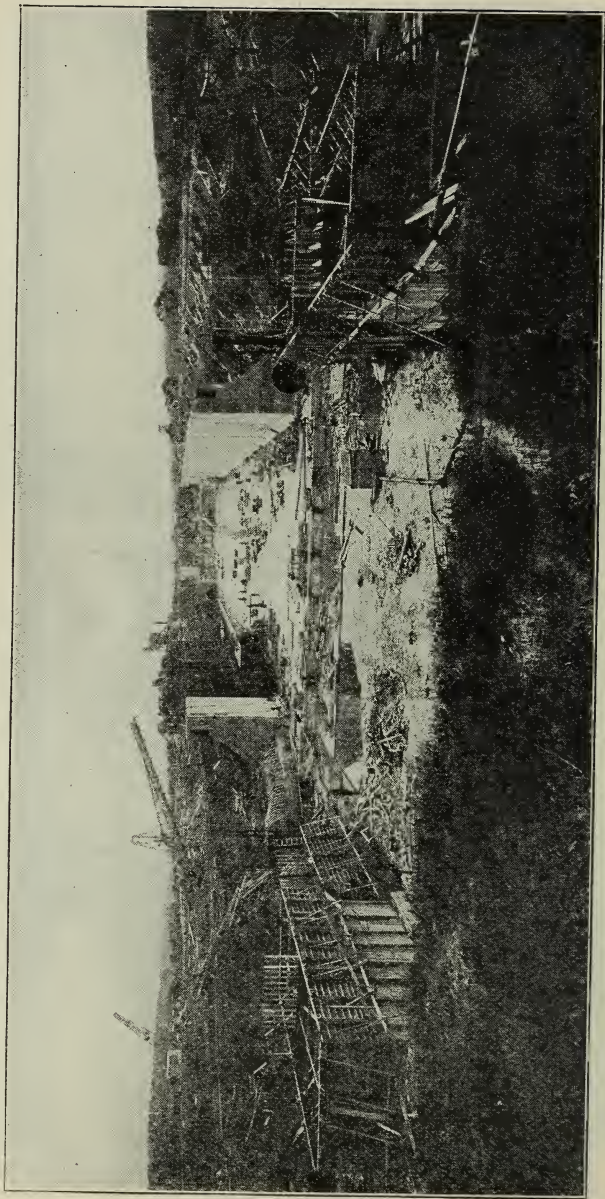
Air view of the Marseilles lock shortly after construction work was started. This lock of the Illinois Waterway is completed except for the installation of machinery



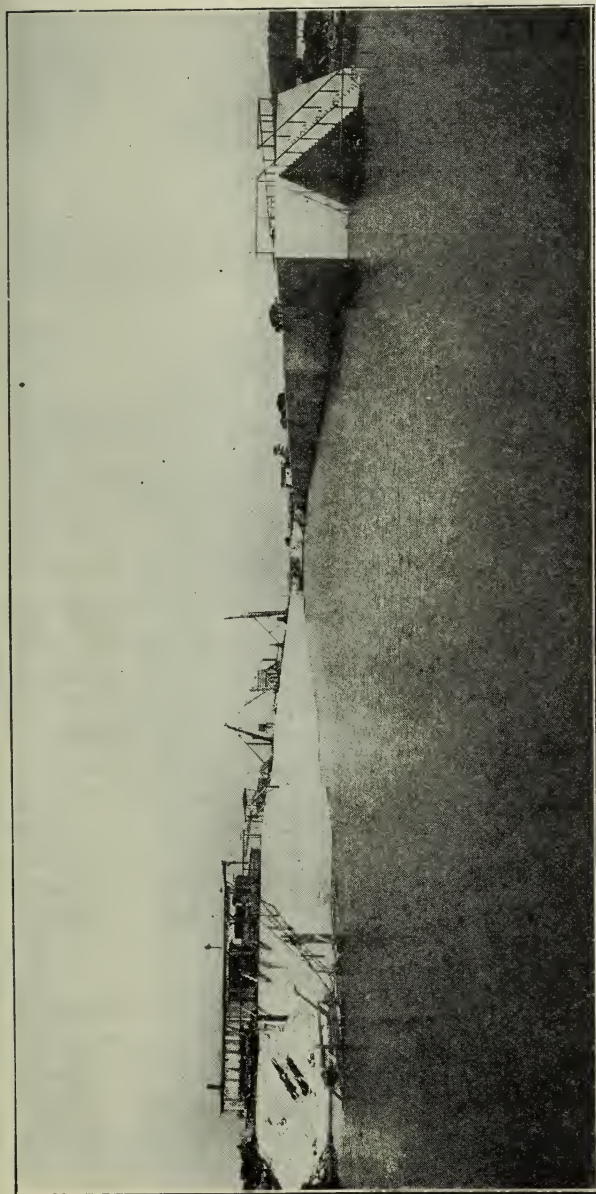
Marseilles lock completed with gates in place



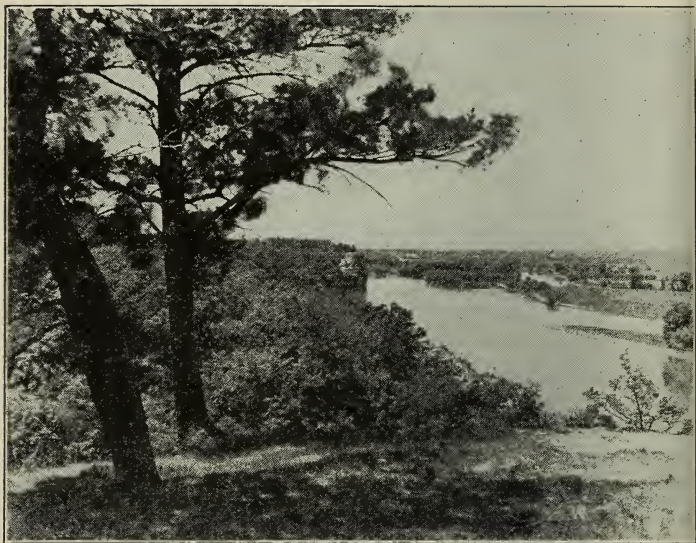
Upper end of Marseilles lock



At work on the Starved Rock lock of the Illinois Waterway. A small army of workers was required to build each of the giant locks



Starved Rock lock of the Waterway, located upstream from Starved Rock, one of the most beautiful scenic spots in the whole State

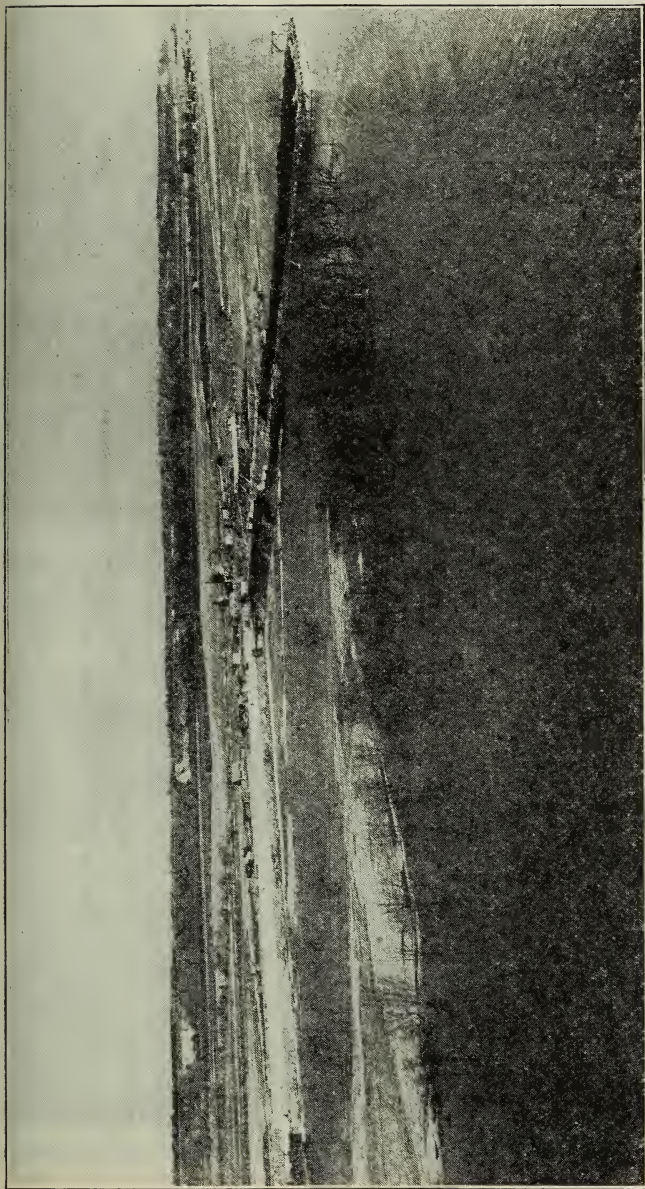


Starved Rock, site of one of Illinois Waterway locks

State, to overcome a fall of 140 feet in the 65-mile reach of the DesPlaines and Illinois Rivers between the end of the Chicago Drainage Canal and the Illinois River near Utica, below which point the Federal Government is developing a 9-foot navigable channel to New Orleans.

The completion of the Illinois Waterway will give us two major inland waterway systems, the Mississippi system and the Great Lakes system. The Mississippi system will consist of about 9,000 miles of connected waterways, of which some 3,100 miles will be trunk lines and 6,000 miles laterals; that is, a main North-South trunk line 1,500 miles long reaching from New Orleans to Chicago and there connecting with the Great Lakes System, and crossing this a great East-West trunk line 1,600 miles in length from above Pittsburgh through Cairo to Kansas City. The Illinois Waterway is the connecting link between these two great systems.

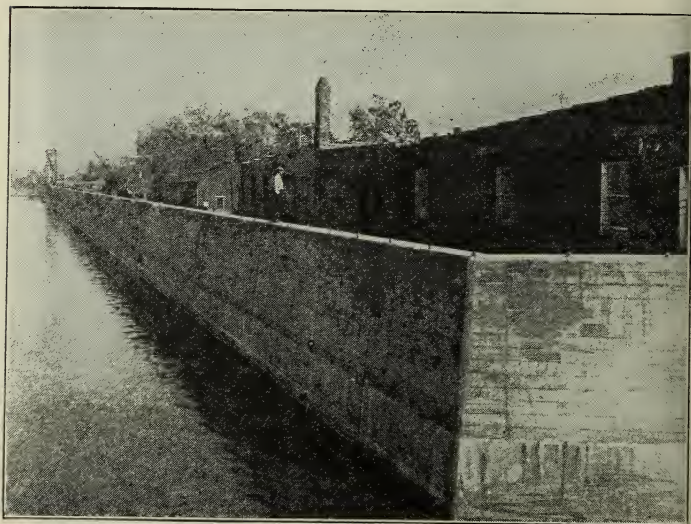
The people of Illinois, by an overwhelming vote, in 1908 authorized the construction of the Illinois Waterway



Starved Rock lock of Illinois Waterway under construction as viewed from top of Starved Rock



Earth levee at Beardstown, erected as a flood protection measure

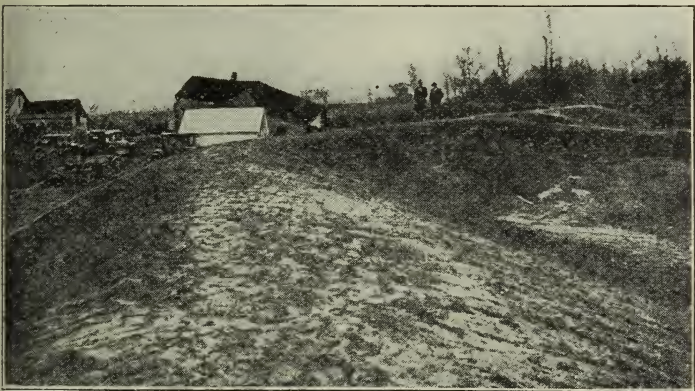


Concrete sea wall erected by State at Beardstown for protection from floods

and the issuance of \$20,000,000 of bonds to provide for the same. It was not until 1919, however, that the necessary legislation was enacted. The work of actual construction to date has all been done during the administration of Governor Len Small. The early progress of the work was hampered by litigation and negotiations over questions of water power and right of way, but these difficulties have largely been surmounted.



Building a "loop" around a break in a river levee



South wing of Rendleman levee, Preston district



Levee along the Mississippi River dynamited to let the flood water (right) back into the river

Description of Illinois Waterway Locks

All the locks of the Illinois Waterway are of the same horizontal dimensions but vary in height. Lock No. 1 is located at Lockport about 35 miles from Lake Michigan. It is now complete, except installation of machinery for operating the lock gates. It is supplied with water through the Chicago Drainage Canal.

This lock has a lift of 41 feet and is equipped at the upper end with two sets of gates of the submersible type, each weighing 200 tons. The gates at the lower end of the Lockport lock are of the swinging type, each gate being 55 feet wide and nearly 65 feet high. They weigh 315 tons each. These gates, which are operated by electricity, are the highest lock gates in the world and when open fold back into the sides of the lock. The lock chamber can be filled or emptied in eight to ten minutes.

How the Locks Raise or Lower Barges

The locks are filled by closing the lower gates and opening valves which allow the water to enter the lock chamber through water intakes in the walls of the lock from the upper level, then the upper gates are closed and

the lower valves opened, permitting the discharge of the water downstream until the water in the lock chamber reaches the level of the pool below the rock. Then the lower gates are opened, allowing the craft to pass out of the lock.

Each lock is large enough to permit locking through a fleet of 10 barges carrying 900 tons each, or a total of 9,000 tons of freight at a single lockage. This is equivalent to 300 thirty-ton freight cars or six railroad trains consisting of 50 cars each.

Location of Locks and Dams

The locations of the locks and dams, with differences in water levels of the upper and lower pools are:

No.	Name.	Location.	Lift.
1.	Lockport,	35 miles from Chicago.....	41 feet
2.	Brandon Road,	2 miles below Joliet.....	31 feet
3.	Dresden Island,	14 miles downstream.....	17 feet
4.	Marseilles,	3 miles below town.....	21 feet
5.	Starved Rock,	between Ottawa and Utica...	16 feet

Total distance, 63 miles; fall, 140 feet; downstream slope, 14 feet; combined lift of locks, 126 feet.

By direction of Governor Small early bids for the Starved Rock job were rejected because of the excessive bid price of \$2,825,040. The present contract price is \$1,475,832, a saving of \$1,349,108. Other contracts are being completed at less than estimated cost.

The Illinois Waterway Act provides for an 8-foot navigable channel in earth sections, 9-foot in rock sections and for 14 feet of water over the mitre sills of the locks, so that in future years the navigable channel may be deepened to 14 feet, without alteration of the lock structures, should traffic development require the additional depth.

If we are permitted to continue the diversion of 8,500 cubic feet of water per second from Lake Michigan, as at present authorized, the construction provided for

by the statute will actually give us a 9-foot channel throughout Illinois Waterway without additional cost of dredging.

Standardized Equipment Likely

The locks of the Illinois Waterway now being constructed by the State are uniform in horizontal dimensions and lockage capacity with those being constructed by the Federal government in the Ohio River, in which navigation to a 9-foot depth will be maintained from Pittsburgh to Cairo, when the 54 Ohio River locks are completed within the next three years. This will permit the use and interchange of standardized equipment on the Illinois-Mississippi and the Ohio-Mississippi trunk lines.

The progress made during the past two or three years indicates this great project should be completed within the next three years.

Business men who have studied the situation know that once barge transportation becomes an actual fact, Illinois will become the real industrial as well as agricultural center of America, with increased prosperity for city and country alike.

Commerce Will Exceed Suez and Panama

Within 10 years the commerce on the Lakes-to-the-Gulf Waterway will be greater than the tonnage of either the Suez or Panama Canals. In 1926, the last year for which figures are available, river transportation for the industrial district of which Pittsburgh is the center, amounted to more than forty-four billion tons as compared with an annual traffic of about twenty-five billion tons each for Suez and Panama.

When the Illinois-Mississippi Waterway is completed, industrial Chicago will soon outstrip Pittsburgh. Its geographical location and the fact that coal and ore may be brought together there at low cost, makes this inevitable when aided by cheap transportation to the markets of the world.

The Interstate Commerce Commission is now committed to the policy of requiring the railroads to join with barge lines in the establishment of through routes, with joint rail-barge and rail-barge-rail rates. The results of such co-operation are cheaper transportation and improvement in business conditions.

The completion of the Illinois Waterway will add at least \$100,000,000 per year in volume of business. This increase in trade and commerce will benefit producers and consumers. Every family will be aided, either directly or indirectly.

Cheap Transportation From Chicago to the Sea

After a century of looking yearningly southward to the sea, Chicago, thanks to Governor Small, soon will watch its barges of Commerce ride out the Chicago and Little Calumet rivers into the Chicago drainage canal, thence into the DesPlaines River, on into the Illinois, out upon the Mississippi, south past St. Louis and on to New Orleans, the Gulf of Mexico and the markets of the World.

A waterway without water would, of course, be useless. Navigation through the Illinois Waterway requires the diversion of a certain amount of water from Lake Michigan. The continental divide separating the Great Lakes-St. Lawrence basin from the Mississippi watershed, lies but a few miles west of the city of Chicago. By digging the drainage canal through this elevation the current in the Chicago River was reversed and it became in fact and in law a part of the Mississippi river system. This is the only point around the Great Lakes at which a diversion of water by gravity flow from one watershed to another is possible.

Amount of Diversion Needed for Navigation

Unfortunately a controversy arose as to the amount of diversion necessary to provide for the sanitary needs of Chicago and the development of transportation.

From 1903 to 1925 the Federal permit authorized diversion of water for sanitary purposes of 4,167 cubic feet per second. But, to preserve the public health of the ever multiplying population of the Chicago district an average of about 8,500 c.f.s. has been diverted for the past 10 years. Proceedings instituted by the Federal government to restrain the excess diversion were decided in favor of the Government by the Supreme Court of the United States, in 1925. Immediately after this vindication of Federal authority the Secretary of War issued a new permit, which expires December 31, 1929, authorizing the continued diversion of 8,500 c.f.s.

The right of Congress to authorize the diversion of water from one watershed to another, or to say how much water may be used, has been challenged in a suit brought in the United States Supreme Court by Wisconsin and other lake states, which assert that neither the State of Illinois nor the Sanitary District of Chicago can lawfully divert Lake Michigan water even though so authorized by the Secretary of War.

On the question thus raised Former Associate Justice Charles Evans Hughes, as Special Master for the Supreme Court, recently filed his report that such diversion having been authorized by the Secretary of War was lawful and that Congress has the right to determine and regulate such diversion.

Mr. Hughes also found that: "There is no adequate supply (of water) for lockage except by diversion from Lake Michigan. Other plans would involve prohibitive expense." Also that: "Upon all the facts it was permissible for the Secretary of War to reach the conclusion that the diversion from Lake Michigan of 8,500 c.f.s. was to some extent an aid to the navigation of the Mississippi River in time of low water."

Does Not Agree 1,000 c. f. s. Is Enough

Refusing to agree that a diversion of 1,000 cubic feet per second will be sufficient for purposes of navigation, the former Secretary of State said:

"The complainants contend that if the water for lockage and navigation purposes for a waterway from Lake Michigan to the mouth of the Illinois River is or should be taken from the Great Lakes-St. Lawrence watershed, a diversion of less than 1,000 cubic feet per second of water is sufficient to supply all the needs of navigation. I am unable so to find. The needs of navigation of that waterway will depend upon carrying out of plans already adopted and upon the ultimate decision of Congress with respect to water communication between Lake Michigan and the Mississippi River; the extent to which locks and dams are to be used or installed (in the lower Illinois), that is, the character of the improvements and the amount which it is determined to expend."

The "plans already adopted" for the Illinois Waterway were sanctioned and approved by the United States Government before work was begun.

The Illinois River below Starved Rock is very sluggish, having a fall of only 28 feet in 225 miles. There were two Federal- and two State-owned dams and locks, originally built to raise the water to seven feet, before the Chicago Sanitary canal was opened. The State dams have been turned over to the United States for deepening or removal. The locks are too small to accommodate tows of barges such as the Illinois Waterway will take care of, without breaking up the formations. Governor Small personally discussed this situation with President Coolidge and the Chief of Army Engineers, with a view to the removal of all the old locks and dams. Congress has authorized improvement of the river to nine feet and removal of the two dams formerly owned by the State.

Terminal Study Being Made for State

Under direction of Governor Small a comprehensive and detailed study is now being made of the entire subject of water terminals, covering all cities and towns located on Illinois waters. It is hoped that as a result of these studies the State may be able to advise the various

communities and interests, public and private, so that terminal facilities and equipment may be standardized and co-ordinated and the greatest possible efficiency established while keeping the expense of terminal construction down to a minimum.

Illinois, located in the heart of the surplus grain belt of the United States, is nearly 1,500 miles farther from the open seas than other great grain-exporting sections, aside from Canada. This puts the Illinois farmer at a great disadvantage. The cost of the long haul to tide-water is also keenly felt by the manufacturers and merchants of our State.

The entire nation contributed to the building of the Panama Canal. The use of the Panama Canal has greatly reduced the cost of haul from coast to coast and has given an advantage of from \$300 to \$1,000 per carload to those able to avail themselves of it. In building the Illinois Waterway in the shortest possible time Governor Small is striving to relieve the industrial and agricultural interests of Illinois from this economic handicap.

Benefits Are Widespread

The farm lands of the Illinois Valley are of unsurpassed fertility. The territory within trucking distance of the Illinois Waterway and its connecting waters embraces 78 per cent of the area and 86 per cent of the population of the State. Within this territory there is annually produced more than 200,000,000 bushels of corn, oats, wheat, rye and barley, of which about 60 per cent is exported. The railroad rate on grain from St. Louis to New Orleans is 18 cents per hundred pounds; the barge rate is 11½ cents. The present difference is 6½ cents a hundred; the ultimate reduction to Illinois farmers when the through route from Chicago to New Orleans is completed will amount to about 9 cents a hundred or approximately 6 cents a bushel; this means a saving of at least \$10,000,000 per year.

Self-propelled vessels of the Mississippi Barge Service are now bringing sugar and coffee from the Gulf coast to St. Louis, then forwarding by rail to Chicago and other points, at a saving of from \$40 to \$60 per car-load. In Chicago, for example, sugar is now received from New Orleans via water to St. Louis, thence by rail to Chicago at a saving of \$60 per car, and coffee is thus shipped at a saving of \$40 per car. Much greater benefits will be secured when water transportation is continued through to Chicago.

Many will be interested in knowing that the Charles Ward Engineering Works of Charleston, West Virginia, has designed a proposed St. Louis-New Orleans passenger steamer, 450 feet long with a speed of 18 miles an hour, 140 rooms with bath and accommodations for 670 passengers.

When the Lakes-to-Gulf Waterway is completed such boats may be expected to ply regularly between Chicago and New Orleans, with daily sailings in both directions. This would permit one to take a night boat out of Chicago and the next morning be in Peoria, after a cool, clean, refreshing night's ride. The same boat would take one on to St. Louis, to Cairo, to Memphis, to Vicksburg, and to New Orleans. With no stopovers, the same boat should make the round trip, 3,000 miles by water, in two weeks.

Emergency Flood Relief Work

Illinois is a river-washed state. Its boundary and bisecting streams are all tributaries of the Mississippi. It is seriously affected by flood conditions in the Mississippi valley.

The map herewith presented indicates the localities where flood damages amounting to more than \$30,000,000 have occurred in Illinois during the past 6 years. This territory includes 447,339 acres of land in drainage and levee districts with aggregate losses of \$25,648,517.

The flood of 1926 was in the Fall of the year and destroyed much of the standing crop in the districts inundated. The 1927 flood came in the Spring and prevented any crop that year. The effect was substantially that of one continuous flood covering a period of 7 or 8 months with total damages of \$18,805,441. To these damages sustained by the Drainage and Levee Districts should be added \$3,198,500, representing flood losses in East Peoria, Mound City and Beardstown for 1926 and 1927, and also about \$850,000 of flood losses reported by railroads and \$750,000 damage to State highways, making a total of \$23,603,941 for the 1926-1927 flood, or a total of \$30,737,685 within the 1922-1927 period.

Flood damages occurred along the Illinois River from Peoria to Grafton, along the Sangamon River from Springfield to its mouth, and on the Mississippi River from East St. Louis to Cairo.

The depth of water on drainage and levee districts in some cases was as great as 15 feet. In the city of Beardstown on the Illinois River, 80 per cent of the city was submerged up to a maximum of about 12 feet.

Governor Leads Fight for Federal Aid

Governor Len Small has taken a keen interest in the problem of flood control. Under his personal leadership, not only did the last General Assembly appropriate \$1,500,000 for emergency flood relief for the sorely stricken flood sufferers of Southern Illinois, but after the Legislature adjourned, a special trip was made to the national capital by the Governor, where he appeared in his official capacity before the Congressional Flood Control Committee to urge Federal action in behalf of permanent protection of the lives and property of the people from the danger of devastating floods.

After submitting a 23-page tabulated report, showing in detail the items comprising the \$30,737,685 damages above recorded, Governor Small among other things said:

"As Governor of the State of Illinois for the past seven years, during which period our people have gone through these trying experiences and have suffered these tremendous losses, there has been impressed upon my mind the menace of the uncontrolled flood waters, and the imperative necessity for the establishment of a broad system of national flood control, through which alone, it seems to me, the recurrence of similar disasters in the future can be prevented.

State Provides Emergency Relief

"The hardships so patiently borne by flood sufferers of Illinois, their fortitude under misfortune and their financial inability adequately to protect themselves and their property from the ravages of the rivers have impelled me, from time to time, in official messages to urge upon the legislative department of our State government the making of appropriations from the public treasury, for emergency relief of the submerged areas and for the development of plans, in conjunction with the Federal Government, for permanent flood prevention through a scientific and comprehensive plan for flood control.

"That the sentiment of the people of Illinois is in favor of permanent flood control and of immediate flood relief, is indicated by the fact that the General Assembly appropriated the sum of \$1,500,000 for Emergency Flood Work by an almost unanimous vote. It is further evidenced by the fact that the people of the city of Chicago voluntarily contributed more than \$1,000,000 additional for flood relief purposes.

"Another appropriation of \$350,000 was made for the construction of concrete walls along the Illinois River at Beardstown and for earth levees connecting the same with the high ground back of the city, thus providing, it is hoped, some measure of permanent protection for the people of this long-suffering community.

"Thus it will be seen that the Legislature of the State has this year provided nearly \$2,000,000 for flood relief work in the State of Illinois."

The Governor concluded his address with an appeal for Federal action to prevent future flood disasters and pledged the cooperation of Illinois in support of any well-considered national program.

The Beardstown sea wall and levees have been completed during 1928.

DIVISION OF ARCHITECTURE AND ENGINEERING

WILLIAM J. LINDSTROM, *Supervising Engineer*

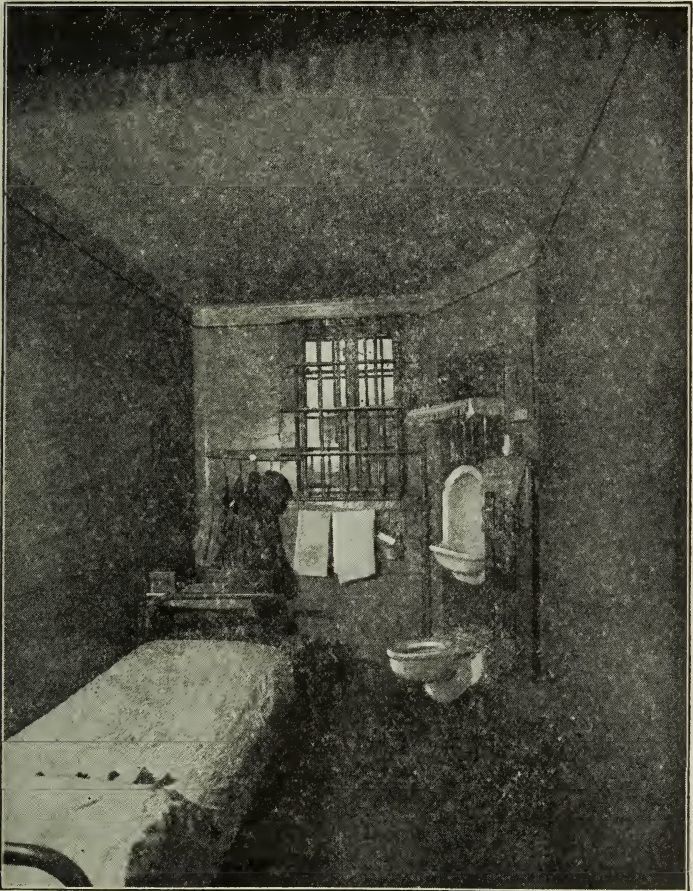
In the light of activities of the Division of Architecture and Engineering, it is pertinent to call attention to the success of Governor Len Small's efforts towards improvement of congested conditions in State charitable institutions, which, when he took office, had become overcrowded to such an extent that patients were sleeping on the floors. Justifiable pride can be taken in emphasizing that additional bed capacity for 6,000 patients has been provided in buildings already turned over for occupancy and in those under construction and approaching completion, an increase without precedence in any similar period in the history of the State. In providing this additional bed capacity, auxiliary buildings, such as boiler houses, dining halls, kitchens, industrial buildings, shop buildings, green houses, school buildings, assembly halls, etc., were necessitated and constructed.

In order to visualize this increased capacity for 6,000 patients one would have to have in mind the entire group of buildings included in two of the largest State institutions: the Chicago State Hospital at Dunning and the Kankakee State Hospital at Kankakee.

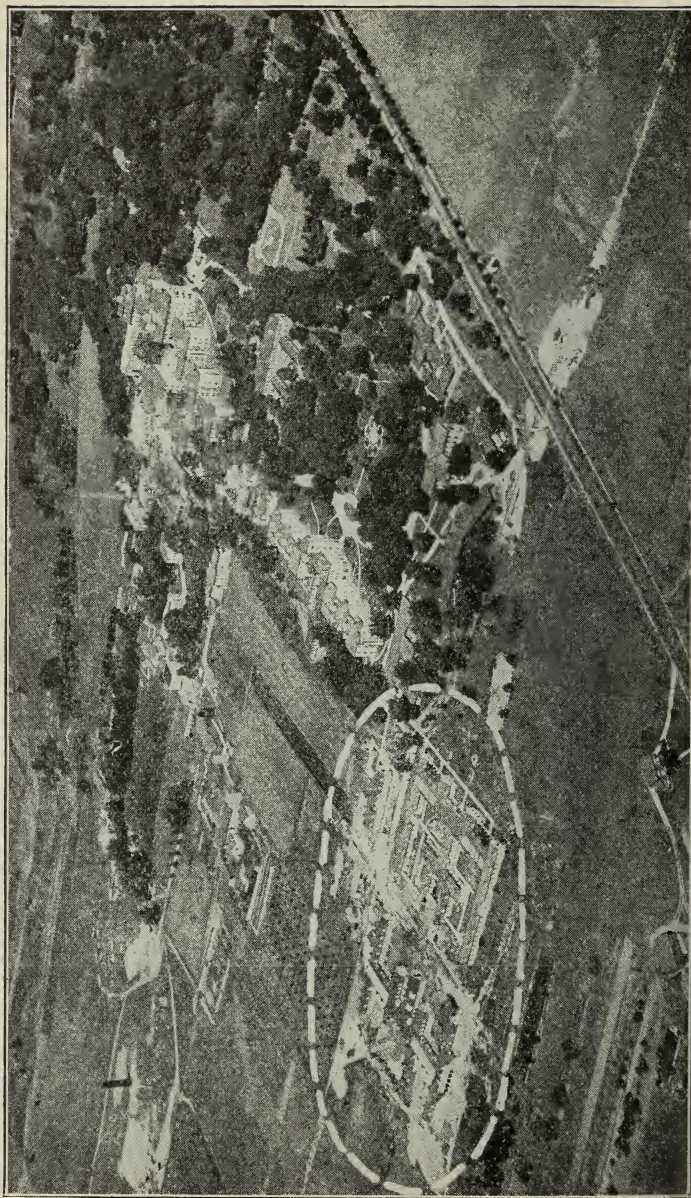
There also have been provided seating capacities totaling 50,000 in buildings for recreation and educational purposes, including the grand stand at the State Fair

Grounds, Springfield; assembly halls at welfare institutions; armories; school gymnasiums and school buildings, as well as the restoration of school facilities in the district devastated by the tornado in the southern part of Illinois in March, 1925.

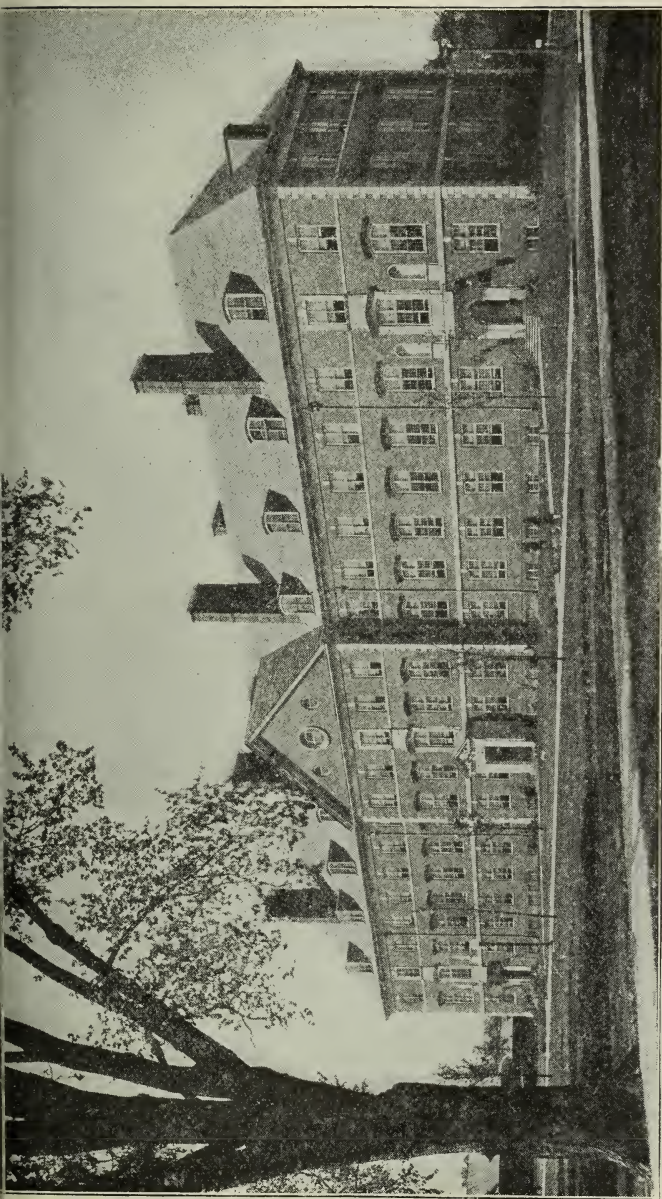
The above building program represents an expenditure of \$12,500,000. In this extensive work the average



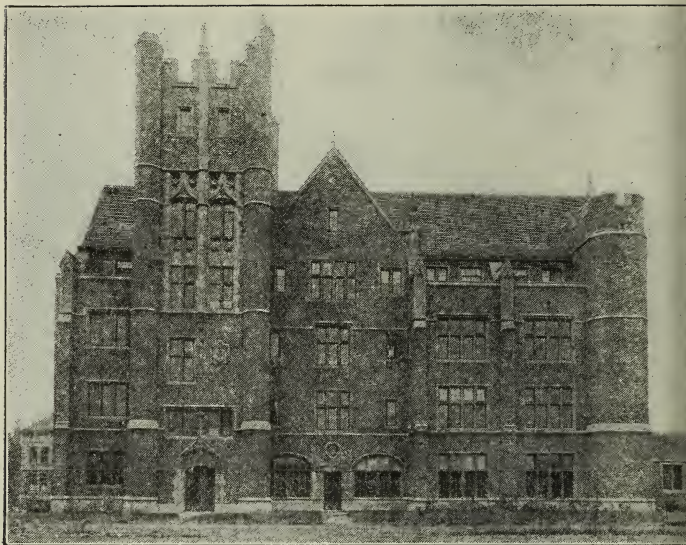
Interior of cell, Illinois State Penitentiary, Stateville



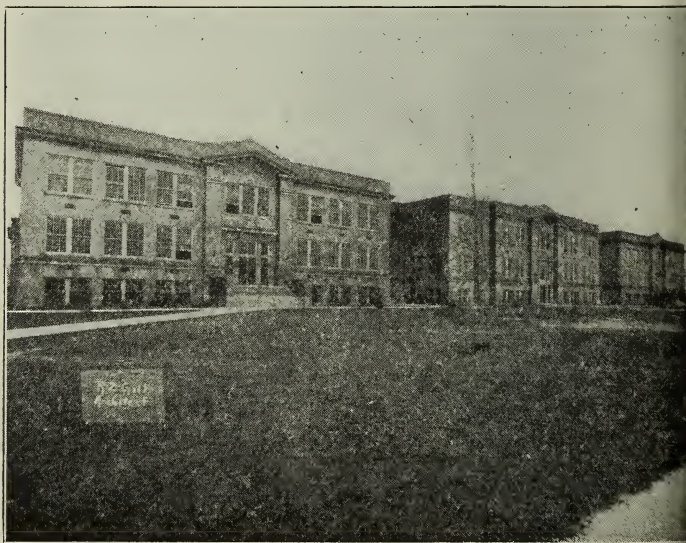
Elgin State Hospital. Buildings in oval are those of new Ry-Sarvino Men's group.



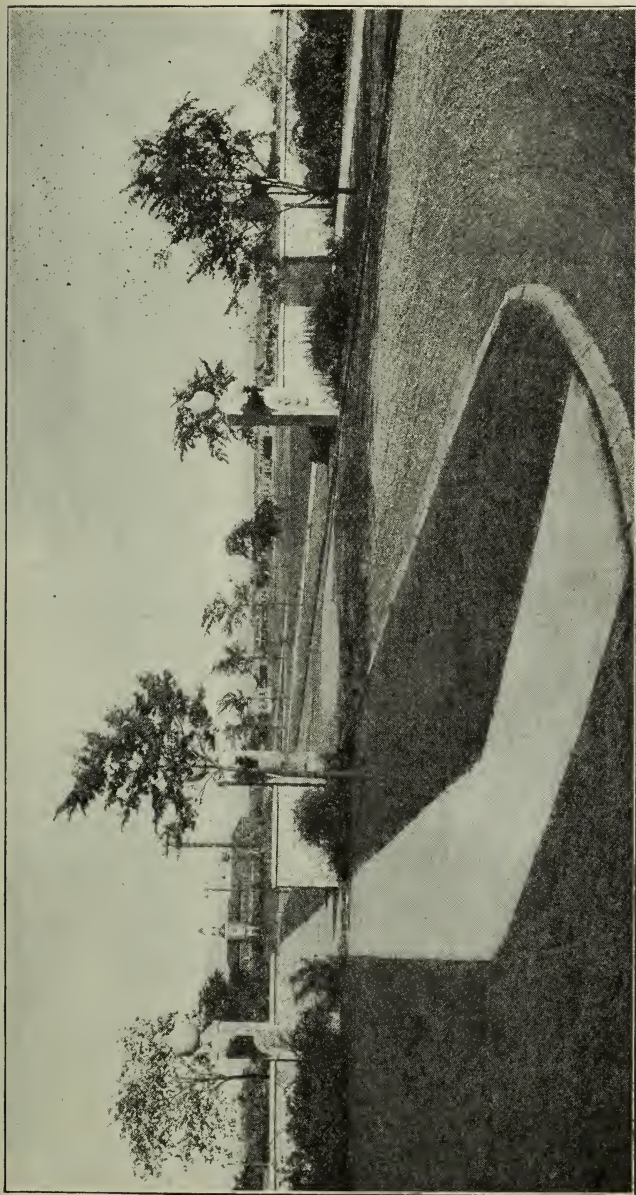
Stately Commerce Building, University of Illinois



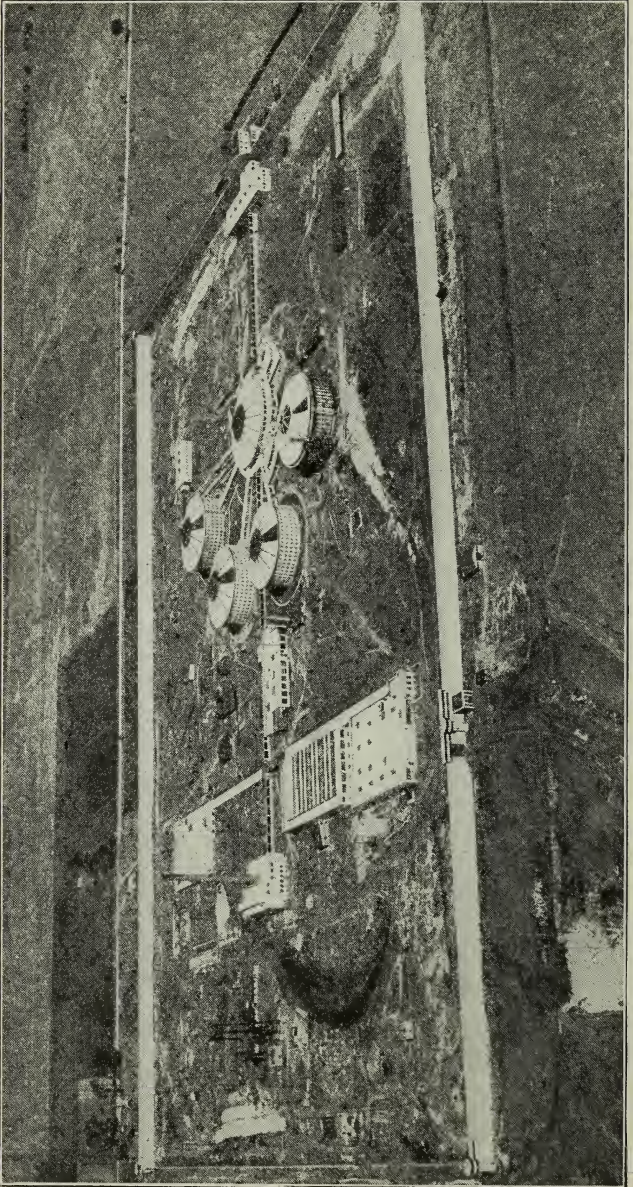
Juvenile Research Hospital of the Illinois Research and Educational Hospital, Chicago



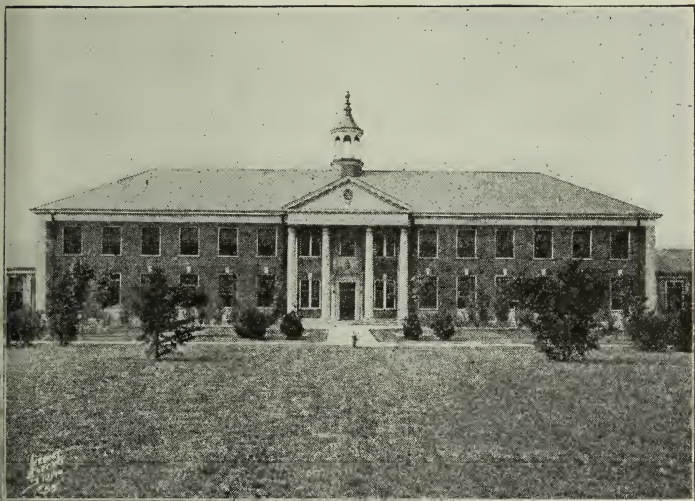
High school at Murphysboro, damaged by tornado and reconstructed by the State



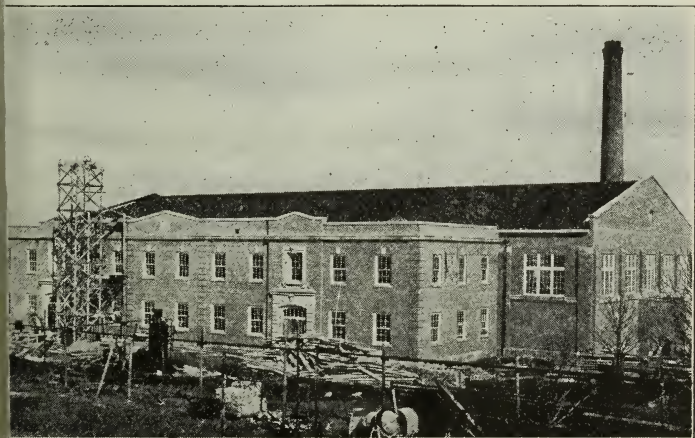
Entrance Gateway, Dixon State Hospital, with several of the Institution buildings in background



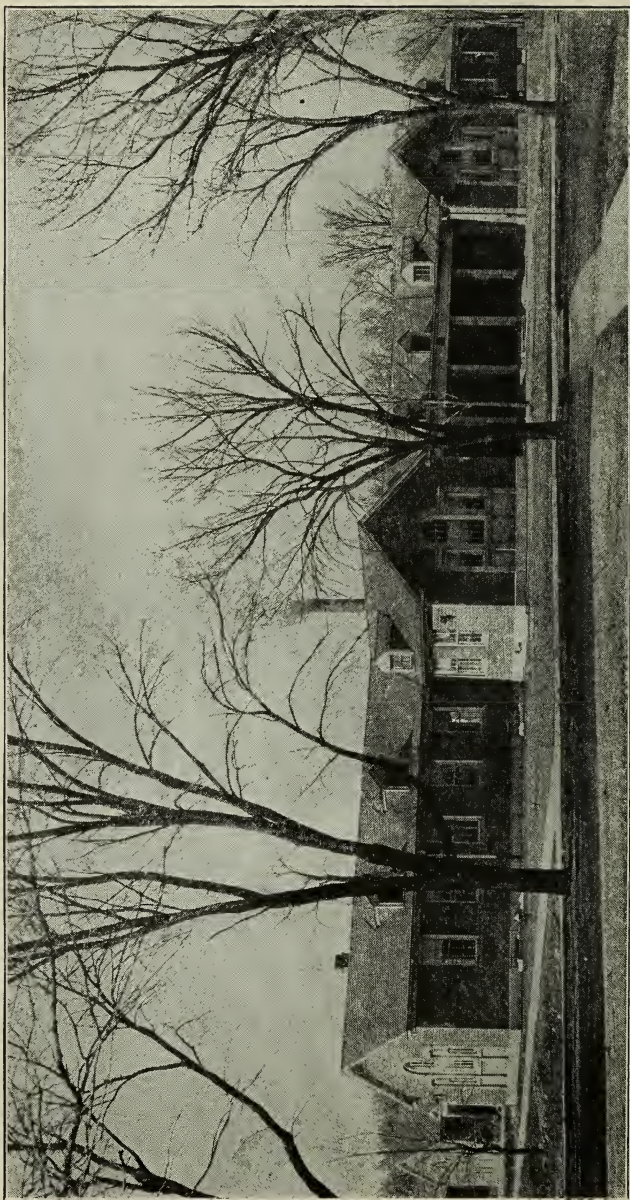
Airplane view of Illinois State Penitentiary, Stateville. Several buildings have been recently added in the huge enclosure



Medical Hospital Building, Alton State Hospital



New Gymnasium, Western Illinois State Teachers' College,
Macomb



Ex-Service Men's Building, Kankakee State Hospital

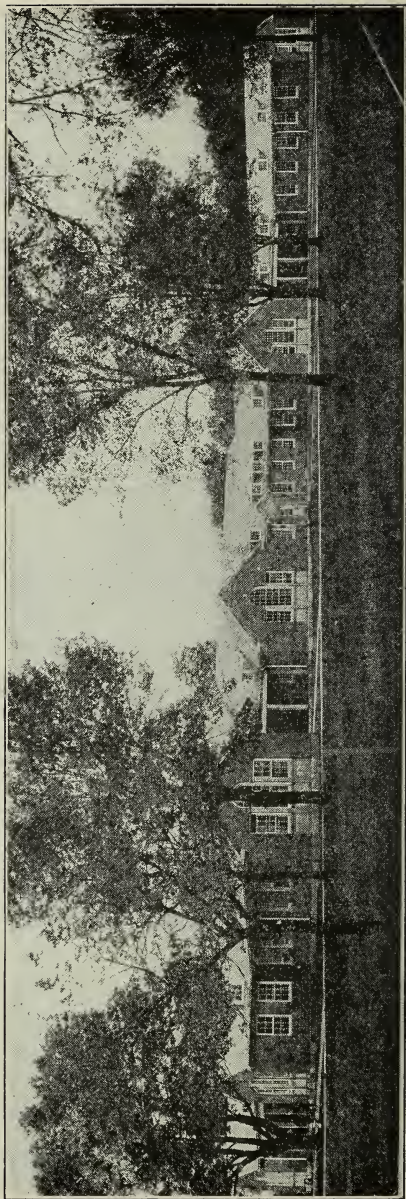
unit cost per hospital bed has been \$1,200, including the incidental buildings necessary to make a complete institution. This is 40 per cent cheaper than is customarily spent for buildings similarly constructed for private use.

Many Institutional Buildings Standardized

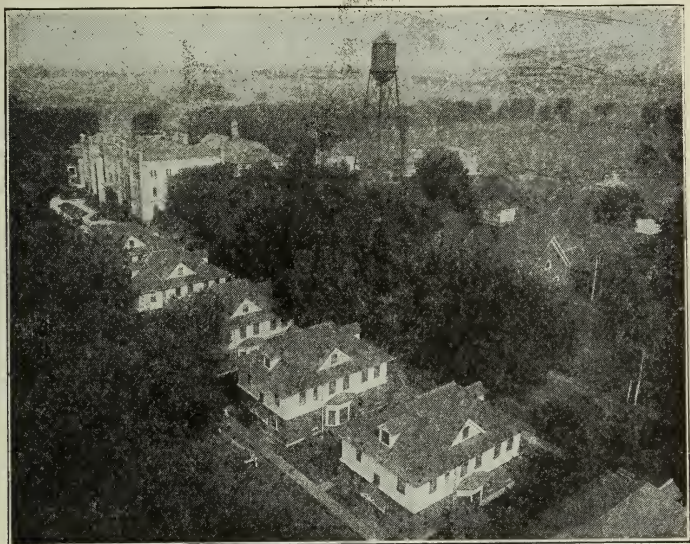
In carrying on this work, the Division has made much progress in the standardization of institutional buildings. Cooperating with the Department of Public Welfare and using as a basis the well worked-out system of classification and subdivision of patients adopted in that department, typical individual buildings have been planned with their internal arrangement adapted to the special requirements of each of the various types of the insane and feeble minded. This will greatly facilitate the future work of the Division and will assist toward a regular and progressive evolution into perfected, practical types of buildings, parallel with the improvement in the care and treatment of the patients that characterizes the present policy of the State. Standard buildings have been designed and built for acute disease hospitals, arranged for ambulatory, semi-ambulatory and bedridden cases; ward buildings for the acute mental or custodial, the educational and the industrial classifications; isolation and observation buildings for diagnostic patients. Many outside authorities have asked for our plans.

Standard details have been adopted looking toward simplifying maintenance and upkeep. A start has also been made toward standardizing farm buildings, a class of structures which is well adapted for repetition in uniform types.

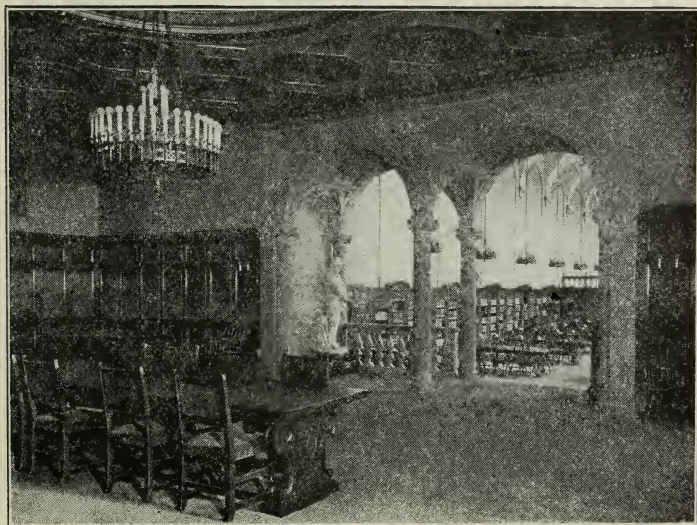
It has been thought best, in general, to have the buildings one story in height without basements. The construction is simple and of permanent materials, the walls are of concrete block, faced with brick on the exterior and on the inside wainscoted with glazed brick seven feet in height. Floors are of impervious terrazzo or tile with no crevices to fill with filth or vermin. The Georgian, a



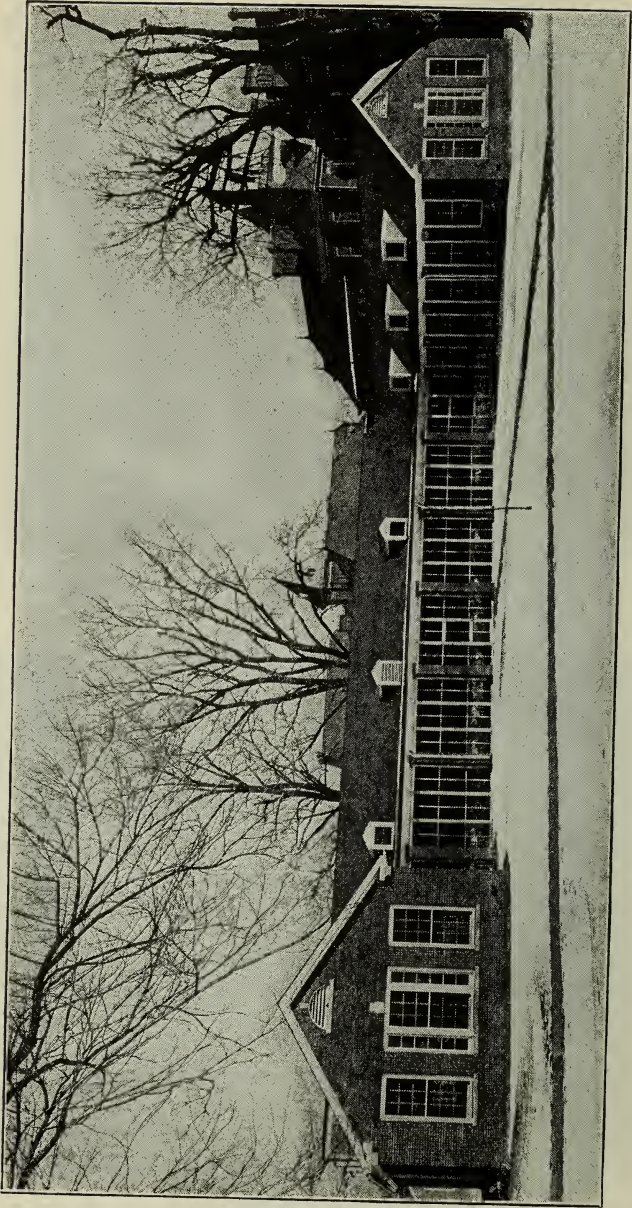
Ex-Service Men's Ward Building, Jacksonville State Hospital. In this, as in other new State buildings, the finest care is given to Illinois' sons who met infirmities and illness as a result of the World War.



Girls' cottages and Administration Building, Illinois' Soldiers' Orphans' Home, Normal



Looking into reading room of library, Centennial Memorial Building, Springfield



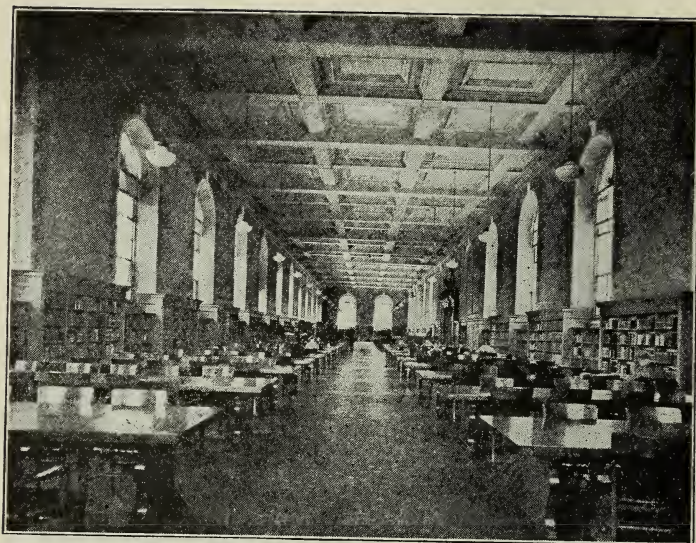
Infirmary Building, Jacksonsville State Hospital



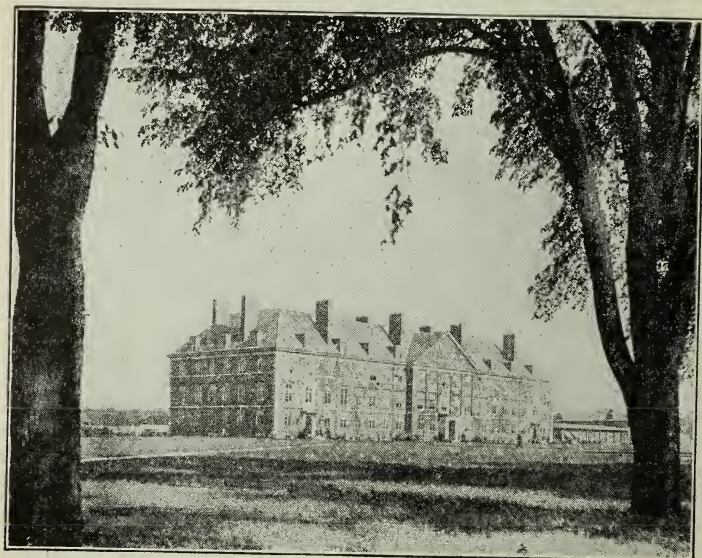
Restored building, Old Salem State Park



New Nurses' Home, Anna State Hospital



Interior of New Library, University of Illinois



New Agricultural Building, University of Illinois



New ward building at the Lincoln State School and Colony

refined and scholarly style of architecture, but at the same time one of great practicability and easily adaptable to modern requirements, has been used. Beecher Hall of Illinois College at Jacksonville, an interesting early example of the Georgian transplanted to Illinois, was felt to be appropriate for use as a model.

The activities consist of buildings and improvements at a majority of the State-owned properties, but the major projects of construction work have been at Elgin State Hospital, Elgin; Centennial Memorial Building, Springfield; Illinois Soldiers' Orphans' Home, Normal; Dixon State Hospital, Dixon; Research and Educational Hospital, Chicago; Jacksonville State Hospital, Jacksonville; Alton State Hospital, Alton; Chicago State Hospital, Dunning; Illinois State Fair Grounds, Springfield; and the new Illinois State Penitentiary, Stateville.

This building program does not include the expenditure of about \$5,000,000 for buildings at the University of Illinois.

The Division has also benefited greatly by the close interest and encouragement of Governor Small in all of its work. Governor Small has never been too occupied to find time to give his close attention to the innumerable details of planning and design. It is needless to say that under such conditions the complete loyalty of all members of the personnel of this office has been enlisted and their utmost capability given to the performance of their duties.

DIVISION OF PRINTING

H. L. WILLIAMSON, *Superintendent of Printing*

The saving of thousands of dollars of the State's money annually has been effected through the system of purchases and procedure followed by the Division of Printing, which is the result of several years' effort on the part of the Superintendent of Printing and the personnel of his office. A considerable portion of the \$1,000,000 appropriated biennially for printing, binding and office supplies has been returned, unspent, to the State Treasury each biennium, and superior grades of work and standards of supplies have been obtained.

Practically all supplies procured for the offices of all elective State officers, the State courts, charitable and penal institutions, Normal universities and the several other State departments through the Division of Printing are purchased direct from the mill in carload lots. This results in savings varying from 25 to 50 per cent in cost, and includes annually the purchase of many carloads of standardized papers. Five kinds of paper are bought for forms, bulletins, books, stationery, etc. Purchases, of course, are made on the bid and contract system, the contract being awarded to the lowest bidder. Printing is purchased in the same way, under eight separate headings. The printers are supplied with paper which has been bought by the State at low cost.

Another saving of importance is that brought about by the prompt payment of bills and the deducting of discounts. The sum of \$25,024.38 in this Division alone has thus been saved since Governor Small took office in 1921.

Standardized Business Forms Adopted.

Within the last few years, coincident with the unification of purchases in this Division, a system of uniform blanks, order forms and other means of routine written communication has been inaugurated and covers all State offices and institutions. Instead of separate blanks for

each office, all use the same forms, which are standardized and printed in large quantities at considerable saving.

The perpetual inventory system of handling stock is maintained. The exact quantity on hand of any kind of paper stock or article for office use is known every day, under this method, and as a result both understocking and overstocking are eliminated, and the Division is also in position to take advantage of the lowest current market prices. No old stock is accumulated. Two store rooms are maintained, each with a power paper cutter for cutting the stock to fit the needs of the various offices. Scratch pads are cut from scraps of paper and obsolete blanks, and are furnished free to all offices. This item alone saves many dollars every year.

A cost expert saves other thousands of dollars each year. Selected for his ability to estimate closely in advance what a given piece of printed work will cost, he goes over each printing order carefully and places the price on it in accordance with the contracts. His work automatically eliminates all possibility of unfavorable price errors and at the same time assures the printers a fair profit.

The State Legislature every two years appropriates to each of the State departments a certain amount of money for printing and binding and office supplies. The Division of Printing fills the orders on requisition as sent in by each department, either out of stock or by direct purchase. A daily balance of each departmental appropriation is kept by the Division, and the possibility of overdrawing on its appropriation by any department is avoided. The Department directors are given monthly statements showing the condition of their appropriations, and are also advised how best to order supplies and to distribute completed work. This cooperation is carried out in the fullest possible manner, to the end that each department may secure more for what it must spend and save unnecessary expenditures.

Costs Kept at Minimum

By a careful advance estimate of the number of copies of each printed order needed, very frequently ways may be found by which a given printing order may be kept at a minimum figure, so there will be no copies left over in disuse, to be sold later for junk. Suggestions are always given where it is seen that savings can be made.

Formerly printers were required to secure stock from the State storerooms and to deliver finished work to the Division. Some time ago a system of trucking was put into use, and a single unit now serves to handle the needs of all printers in Springfield doing State work, at a great saving.

The appropriation for the Division has not known a deficiency since Governor Small took office. Instead, balances have been on hand at the close of each biennium, which have totaled \$191,159.31 for the Administration period.

In addition, approximately \$34,000, made up of receipts from various sources, including the sale of waste paper, etc., has been turned into the State Treasury from this Division during the same period.

During the year July 1, 1926, to July 1, 1927, a total of 18,820 orders from various State departments and institutions were filled by the Division.

The efficiency of the Division of Printing has been fostered to a large extent by the insistence of Governor Small that all Divisions of the State government accountable to him shall be operated in a manner which best conserves the taxpayers' money and at the same time gives the highest degree of service both to the administration of the State's business and to the people of Illinois as a whole.

DIVISION OF PURCHASES AND SUPPLIES

LAWRENCE H. BECHERER, *State Purchasing Agent*

Charged by law with the duty of consolidating and purchasing the many requirements of the State, the Division of Purchases and Supplies has been confronted with the continuing task of seeing to it that a dollar's worth of merchandise is obtained for every dollar expended. To this end the energies of the State Purchasing Agent and the personnel of his office have been bent with results that have attracted the attention of large-scale buyers in every part of the United States.

To list and classify the items purchased by this Division every year would in itself occupy an entire large volume, yet the whole work is accomplished by a small force of fourteen employees and the State Purchasing Agent at an expense of less than one-half of one per cent (about 1/250th) of the total volume purchased. So far as it has been possible to ascertain, this is a smaller buying cost than that of any of the other states of the Union.

During the administration of Governor Small a highly efficient system of purchasing has been evolved and put into use with the following results:

(1) Contracts for supplies are made to the lowest bidder on a quality basis, following an open and above-board competition for each article or group of articles by responsible bidders. Records of each transaction are open for inspection at all times by the public and the bidders.

(2) From \$300,000 to \$400,000 is saved annually by the prompt payment of bills, enabling the State to take advantage of every possible discount in price.

(3) All articles purchased are analyzed, tested, inspected or compared with the original samples before they are paid for. In this way the State always gets what it orders and pays for.

(4) The waste invariably attendant to emergency buying and small quantity purchase is eliminated by buy-

ing, whenever possible, on contract for periods of three months, six months or a year.

(5) The contracts for supplies having a quickly changing market price, or whenever there is a possibility of a change in price, are awarded within an hour or two of the opening of bids.

(6) In addition to public advertising, as required by law, proposals are sent to all interested potential bidders, insuring the State advantage of the widest possible market from which to select and the maximum competition in bidding.

(7) Every possible encouragement is given to Illinois individuals and firms, and to dealers in materials produced in Illinois.

Many economies have been effected by adoption and use of a comprehensive system of specifications. The specification itself is a detailed description of an article used by the State, as proved best for State use by exhaustive laboratory and practical tests. There are more than 30,000 specifications on file, from canned corn to concrete mixers, from automobile parts to barn paint. These are constantly revised and kept literally up-to-the-minute.

Under the specification system, the State secures bids on what has been proved best for its use, eliminating consideration of articles offered by those who sell their own products, regardless of the quality, value or adaptability. The purchase of better food, clothing and general supplies has materially reduced waste and added greatly to the comfort and happiness of the State's wards without increasing (in many cases decreasing) costs. No seconds, shoddy or sub-standard articles are bought, and food qualities are such that no separate provision is necessary for the tables of employees.

More than 40,000 bids, covering upwards of 1,000,000 separate items, are received each year by the Division. Largely through the use of the specification system and the application of other modern business principles, it has been possible to improve the standards of all

staple items purchased, so that the per capita cost of feeding and clothing the more than 35,000 wards of the State, as shown by the reports of the Department of Public Welfare, has indicated a successive decrease during each year of Governor Small's administration.

By volume purchasing in this day of large-scale buying, the State, by consolidation of its buying power, is passing on large savings to the taxpayers.

Statistical information and advance market forecasts compiled and furnished by the Division, have proven of immense value to other State departments in the preparation of their requisitions and budgets, effecting further curtailment of expenditures.

Thousands of dollars have been saved by the use of modern business principles in the operation of this Division. A few of these savings are reflected in the average prices paid during 1927 for the following commodities:

Flour, \$6.67 a barrel, or 3.4 cents a pound; beef, 11 cents per pound; ham, 19.9 cents a pound; bacon, 20.5 cents per pound; and milk, 25.9 cents a gallon, or 6.5 cents per quart. Only the best grade of each were purchased. Specifications, for instance, are based on choice handpicked navy beans, the best quality of Santos coffee, 92-score butter, and so on. Coal, not including freight, was purchased for less than \$2 per ton. Automobile tires were bought at 15 to 20 per cent less than current wholesale prices.

The Department of Conservation

GUS H. RADEBAUGH, *Director*

AT THE beginning of the Session of the 54th General Assembly, Governor Small especially urged, in his biennial address, the creation of a new Department under the Civil Administrative Code, to be known as the Department of Conservation, which would take over the Division of Game and Fish from the Department of Agriculture and also include reforestation, stream pollution, and other important rehabilitation measures, relating to all our natural resources.

In order to carry to a successful end the plan as suggested, a Committee was appointed by the President of the Senate and the Speaker of the House and the result of their efforts was the enactment of a bill creating the Department of Conservation, which passed both the Senate and the House with little opposition and was approved by Governor Small June 3, 1925.

According to the law under which it operates, the Department of Conservation is actively engaged in the program of conservation, distribution, propagation and restoration of fish, mussels, game, frogs, turtles, wild animals, wild fowls and birds, besides the promotion of planting, protecting and conservation of our forests. The Department encourages in every practicable manner the interest in fishing, hunting and reforestation, the collection of statistics relating to fish, fowl and forest, and the dissemination of information concerning the conservation of fish, forests and streams.

The Department of Conservation law anticipated with foresight the importance of stream sanitation as related to the successful propagation of fish and fowl. The

law specified that this Department shall exercise all rights conferred by law, take such measures as are necessary for the investigation and the prevention of pollution, and encourage such sanitary and wholesome conditions in rivers, lakes, streams and other waters in our State as will promote, protect and conserve fish, game and bird life.

The Department through its several fish hatcheries, fish reclaiming stations, game farms, the educational exhibits at fairs and expositions, publication of instructive literature covering reforestation, fish culture and game raising and its corps of experts is doing much to bring to the taxpayers of the State a direct benefit, not only for this generation but for posterity.

In less than four years, Governor Small and his associates have seen the far-reaching influence of their efforts in establishing a Department which has contributed so much to the future wild life of our State. A reference to the organization diagram will give an opportunity to study and review the complete and effective control the Department maintains over its personnel. Varied activities are found in the Department, and to secure maximum efficiency a definite organization control was established. It is interesting to observe the number of influences attacking this important problem of conserving our forest and aquatic resources.

The following tabulation gives the executive organization effecting this Department:

Gus H. Radebaugh.....	Director
Frank E. Abbey.....	Assistant Director
R. B. Miller.....	Chief Forester
S. S. Locke.....	Assistant Forester
Bruce L. McKinstry.....	Educational and Statistical Service
Wm. R. Teece.....	Aquatic Biologist and Super- visor of Fish Hatcheries
Glen W. Palmer.....	Assistant Supervisor of Fish Hatcheries
C. J. McPhail.....	Ornithologist and Supervisor of Game Farms

BOARD OF FOREST AND AQUATIC RESOURCES AND CONSERVATION ADVISORS

O. W. Lehmann, Chicago	Wm. H. Stuart, Chicago
Dana Rollins, Bloomington	H. H. Ferguson, Alton.
Robert Scholes, Peoria	

STATE FISH HATCHERIES

Spring Grove Hatchery.....	Thos. McCafferty, Supt.
Mattoon Hatchery	A. H. Wallace, Supt.
Kankakee Hatchery	Geo. Watts, Supt.
Rockford Hatchery	Henry Cassidy, Supt.
Yorkville Hatchery	Glen Palmer, Supt.
Wyanet Hatchery	James Welsh, Supt.
Carlyle Hatchery	Chas. Foster, Supt.
East St. Louis Hatchery.....	A. Alexander, Supt.
Lincoln Park Hatchery.....	Floyd S. Young, Supt.

In Construction:

Geneseo Hatchery

Peoria Hatchery (Top minnows for mosquito eradication).

FISH RECLAIMING STATIONS

Meredosia Station (Illinois)....	Robert Sparks, Supt.
Savanna Station (Mississippi)..	J. H. Kilgore, Supt.
Havana Station (Illinois).....	H. F. Bell, Supt.
Anna Station (Mississippi).....	J. E. Thornton, Supt.

GAME FARMS

Yorkville Pheasantry	C. J. McPhail, Supt.
Alton Pheasantry	V. Davies, Supt.

AQUATIC RESEARCH LABORATORIES

Meredosia Bay	Meredosia, Illinois
Horse Shoe Lake.....	Cairo, Illinois
Mississippi River	Savanna, Illinois

ORNITHOLOGICAL RESEARCH LABORATORY

Camden Hollow State Game Pre-	
serve	Grafton, Illinois

GAME REFUGES

Horse Shoe Lake (Cairo).....	C. J. Spencer, Supt.
Oquawka	Gus Chilberg, Supt.
Upper Mississippi Wild Life Refuge (Federal Control).....	W. T. Cox, Supt.
Camden Hollow State Game Pre- serve (Grafton)	H. Bonds, Supt.

PUBLIC SHOOTING GROUNDS

Woodford County Preserve.....	J. E. Strauch, Preserve Warden
Sparland	W. S. Osborne, Preserve Warden

DISTRICT INSPECTORS

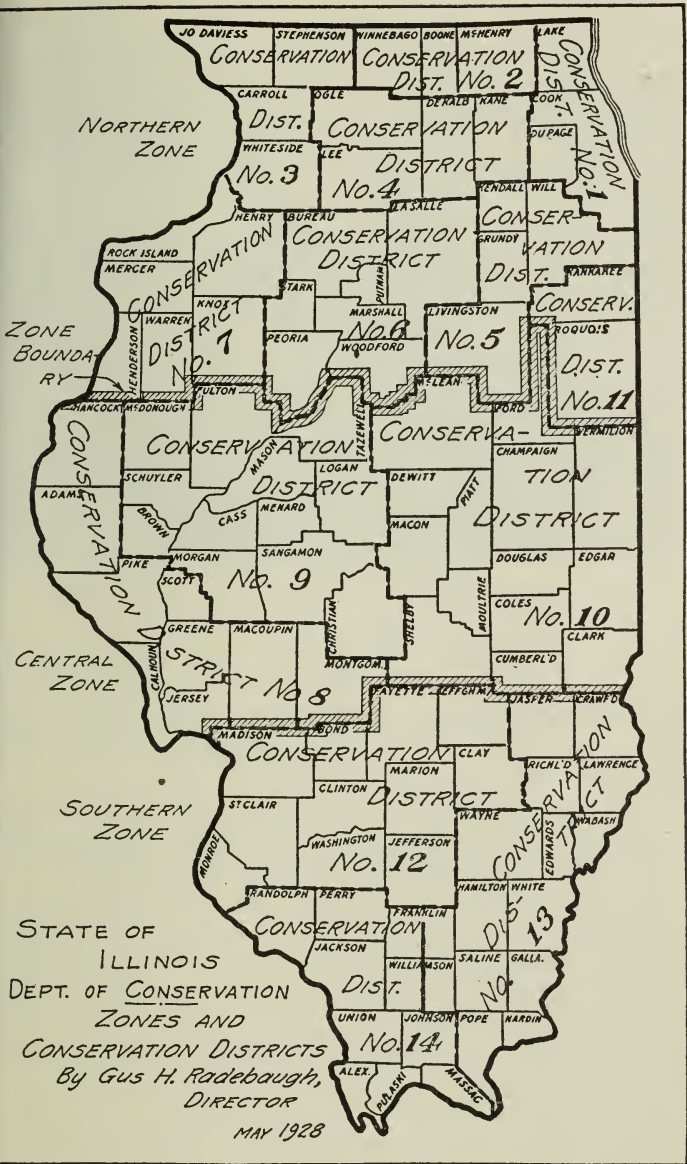
PROTECTION—VERMIN CONTROL—WINTER FEEDING

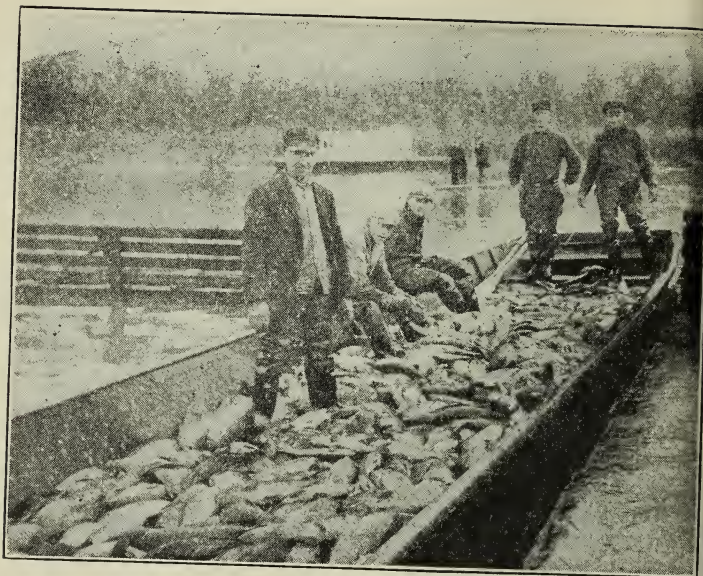
1. William A. Merrill, Chi- cago	8. Logan Baker, Pittsfield
2. Charles Eldredge, Rich- mond.	9. Roy L. Phelps, Beards- town
3. Stephen Rigney, Freeport	10. C. E. Huff, Danville.
4. Charles M. Myers, Oregon	11. G. W. Watts, Kankakee
5. Adam S. Clow, Plainfield	12. Henry J. Schmidt, Nash- ville.
6. Herbert Landauer, Peoria	13. Earl Brannon, Equality
7. Gus Chilberg, New Wind- sor	14. J. D. Becker, Evansville

The accomplishments of the Department of Conservation, during its short period of operation, have been most gratifying and are so extensive as to bring Illinois into second place in conservation work in the United States. Besides the work already done by the Department, its policy has been so formulated that a foundation is being laid for even greater results in the future. During its last two sessions, the General Assembly has recognized and shown its approval of the necessity of preserving our game and insectivorous bird life as an indispensable adjunct to profitable agricultural production.

Splendid Cooperation

Sportsmen of Illinois are to be commended for the splendid cooperation which they have generously given to

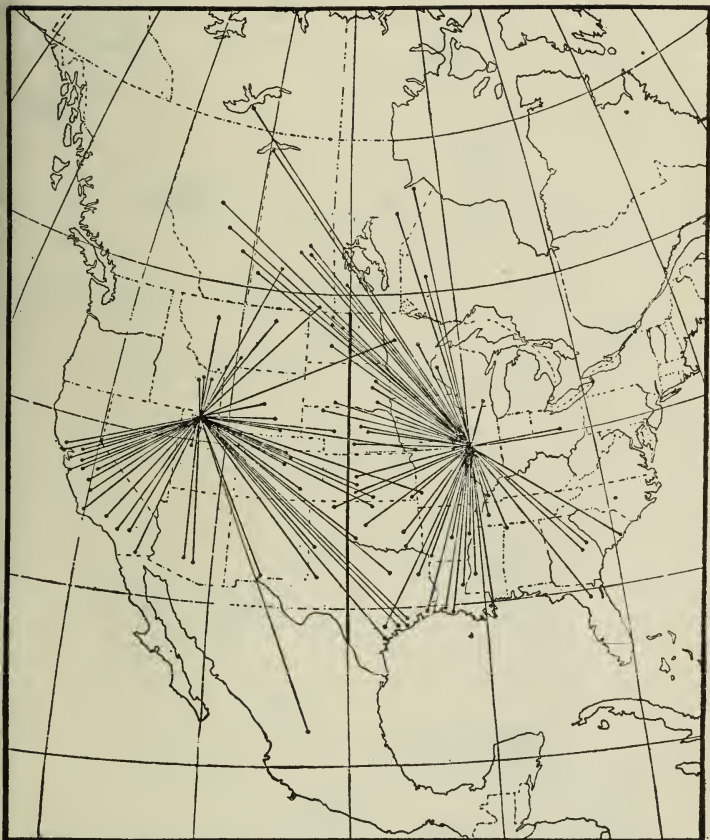




Illinois buffalo and carp destined for eastern markets

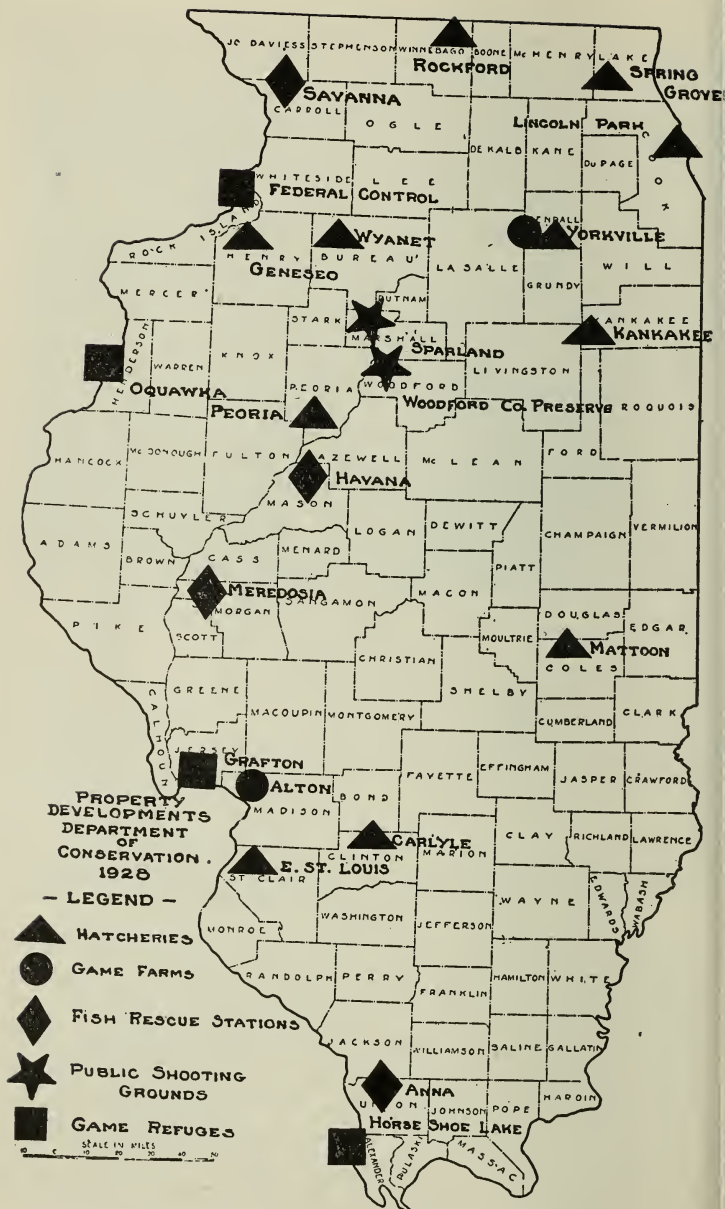
these efforts through their leagues and other organizations; and it is hoped that this same support will be extended by every hunter and fisherman, so that the streams and fields of the State may be replenished at the earliest possible time.

In the enforcement of the game and fish code, the Department exerts every effort to secure and has generally received the most sincere cooperation from all law-enforcing agencies in the State. The Department appreciates that without the aid of the Courts and others entrusted with the administration of the law, the Department is helpless in carrying out the provisions of the Courts and in bringing to justice the violators of the law. Public attitude has changed considerably during the past several years and the work of the field investigators of the Department has been much encouraged by assistance given to them by an interested public. This condition is due to the high ideals promoted by the various Nature-

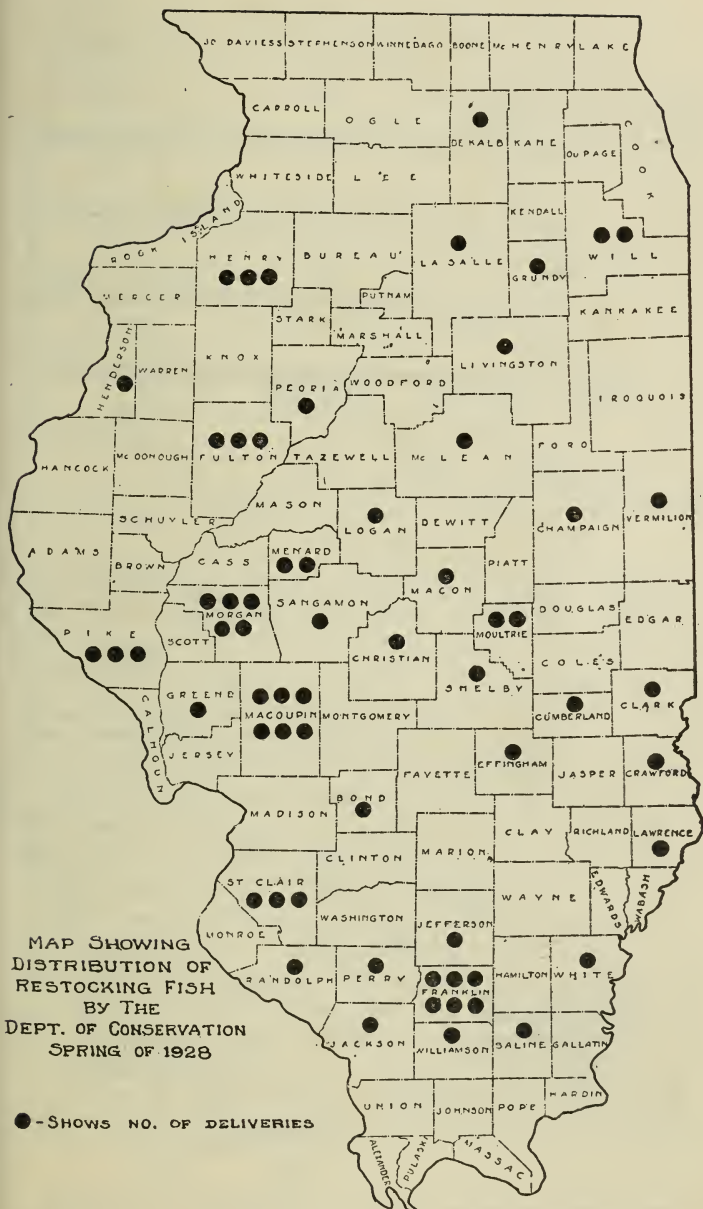


Flights of banded ducks at two concentrated centers, Bear River marshes, Utah, and Illinois River marshes

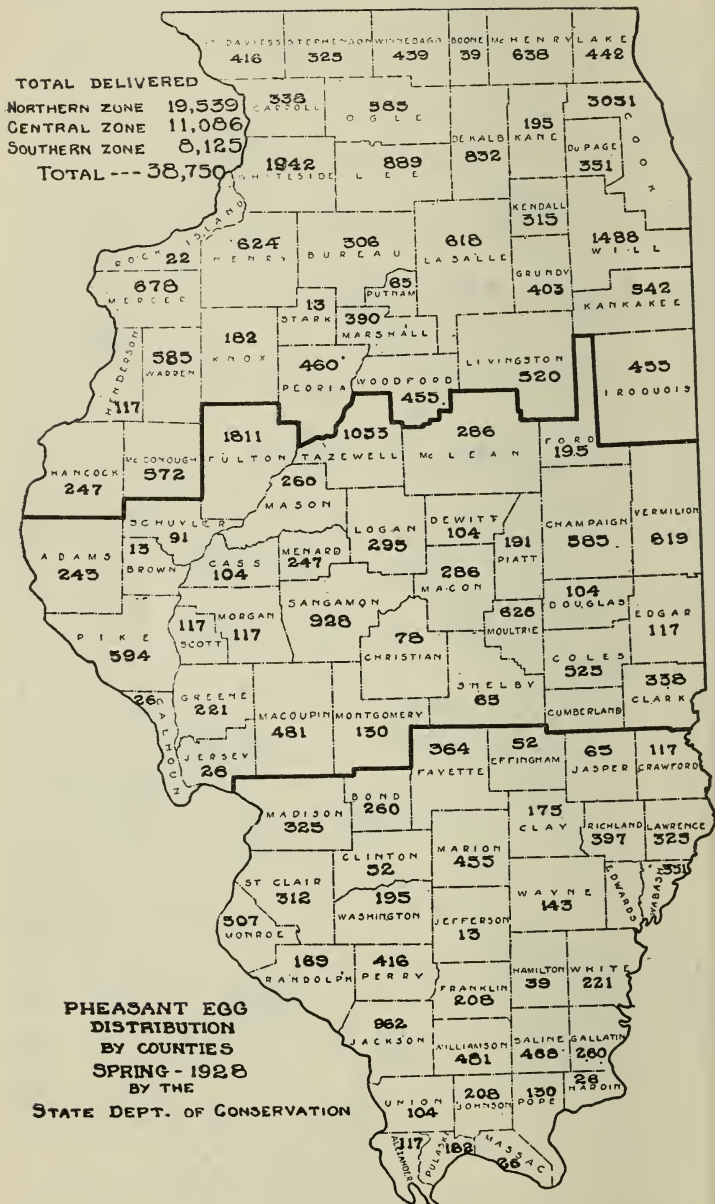
loving organizations in the State, such as the Izaak Walton League and other sister organizations. In order to increase the efficiency of the Department, the State has been divided into fourteen conservation districts, each district being supervised by an inspector. Each inspector has district investigators under him for carrying on the protection of game and fish, the enforcement of laws, vermin control, and the feeding of game during the winter. One of the maps herewith shows the conservation



Map showing property developments of the Department of Conservation



Map showing the distribution of fish to the various counties of the State



Map of State showing pheasant egg distribution by counties

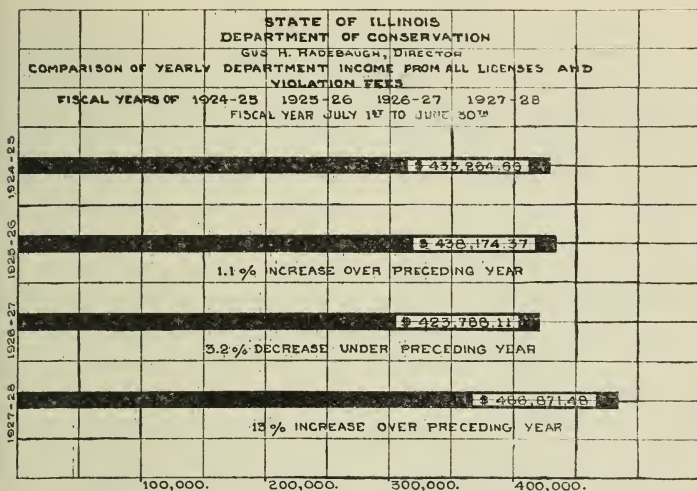


Chart showing comparative revenue collected by the Department during the past four years

districts in the State. If Illinois is to take advantage of her recreational facilities, it is of paramount importance that the game and fish code be enforced. A few professional violators should not prevent our various communities from increasing that business received from tourists and people seeking recreation that are sure to come if fish and game are available. It is the opinion of Governor Small and the Director of the Department that we as citizens have paid too little attention to the importance of the enforcement of the game and fish code, as it is closely related to the establishment of a large State-wide business that is being lost to our State each year by vacationists spending their money elsewhere. The release of a defendant found guilty without payment of the fine assessed is a practice that should be discouraged, as this kind of activity invites other violations. Courts and all invested with the authority of the law are sincerely urged to collect all fines assessed. Only in this way can the Courts and the Department escape well-deserved criticism.

Illinois Ranks First

Illinois ranks first among the inland states as a fish-producing state. The Mississippi River bordering the State its entire length on the west boundary, the Ohio for a distance of 130 miles and the Wabash for 148 miles and also the Illinois River, Lake Michigan and other inland lakes, afford extensive breeding grounds for fish and aquatic life. It is reported by Dr. S. A. Forbes that about three dozen of the 150 species of Illinois fish have a marketable value as food. It is regrettable that the Illinois River, once the most prolific fish-producing stream, with possibly one exception in the United States, is not producing the fish it should above Peoria, due to its polluted condition. The Illinois River is the most important fishing ground within the boundaries of Illinois and every effort should be made to restore this stream to its natural fish-producing ability, maintaining an industry of approximately one to two million dollars annually.

Fish Hatchery Program Enlarged

Governor Small and the 54th General Assembly greatly enlarged the power of the Department of Conservation by the passage of Senate Bill 422. Under the provisions of this bill, the Department is authorized to select and purchase or lease, receive by donation or acquire in accordance with the laws relative to eminent domain, suitable submerged lands for the breeding, hatching, propagation and conservation of fish.

The law further provides that any municipal corporation, by proper instrument of conveyance executed by the corporate authorities, may convey to the State of Illinois, by way of sale, lease or gift, lands or any other property to be used by the Department of Conservation for the construction, establishment and maintenance of fish preserves and hatcheries.

Another very important law enacted by the 54th General Assembly gives the Department of Conservation power and authority to select and purchase or lease, re-

ceive by donation or acquire, in accordance with the laws relating to eminent domain,

(1) Suitable lands for the propagation and conservation of game birds, wild animals, and song or insectivorous birds, or

(2) Lands to be used as public shooting and fishing grounds.

The enactment of the new law permitted the carrying out of a real constructive policy by the Department and the installation of hatcheries, bass ponds and preserves in various sections of the State, enlarging the work of propagation and distribution while reducing the cost of transportation of stock fish.

This law is a splendid piece of constructive legislation and has vastly increased the activities of the Department. It should be borne in mind that all expenditures for lands and the equipment of hatcheries, as well as the maintenance of the same, is entirely met by the sale of licenses issued by the Department, and that no cost for anything connected with the Department comes from taxes paid by the people.

More Fish for Lakes and Rivers

Concentrated effort of the Department personnel has been directed towards the propagation and reclamation of the fish in the lakes and streams of the State. At present nine hatcheries are in operation under the Department's control and two are under construction, located at Geneseo and near Peoria. These two hatcheries will soon be active in the work of raising fish for distribution throughout the State. The hatchery at Peoria is to be used for the propagation of top minnows used in mosquito eradication work, and the other usual game fish. This is a departure from the usual activities of the Department. The hatcheries are of the most modern type and annually produce millions of fish which are used to restock the rivers and lakes. Those now in operation are



Hatchery at Kankakee State Hospital



East St. Louis Hatchery, a natural spawning ground for the gamey bass

located at Spring Grove, Mattoon, Kankakee, Rockford, Yorkville, Wyanet, Carlyle, East St. Louis, and Lincoln Park.

KANKAKEE HATCHERY

On a ten-acre tract of land controlled by the State Hospital at Kankakee, is to be found one of the fish hatcheries of the State Department of Conservation.

Although needing control measures for the holding of fish in the hatchery, the possibilities of the preserve are considered among the most promising in the State.

A dam 150 feet long impounds the water of the pond, and cut into this dike are two spillways. The dam was built across a small creek emptying into the Kankakee River.

This hatchery has a beautiful setting, well suited for the rehabilitation and pleasure of the patients of the hospital located at Kankakee.

EAST ST. LOUIS HATCHERY

More than 500,000 fish a year can be produced in the fish hatchery of the State Department of Conservation located at East St. Louis, Illinois.

Last year, 18,000 fish, mostly crappie, were taken from the ponds. It has been estimated that full capacity operation of the project would return half-a-million fish yearly into Illinois streams and lakes.

The preserve is situated on the southeast edge of East St. Louis, consisting of 23 acres of land and water, one acre of State-owned land and 22 acres of land and water owned by the East St. Louis Park Board. This acreage is donated to the State with the understanding that it will be exploited in the interest of fish.

In two large rearing ponds covering an area of approximately 13 acres, the fish are bred yearly. The ponds are supplied by a 110-foot well, from which water is pumped into them by an electric 500-gallon pump. Opportunity for the extension of the work is possible since ground can be obtained necessary for the establishment of another pond.



Carlyle Hatchery, a beautiful recreation spot



Rockford Hatchery which will produce 8,000,000 fish in 1928

CARLYLE HATCHERY

In the historic Kaskaskia country, near the town of Carlyle in Clinton county, one of the finest fish hatcheries of the State Department of Conservation is located, the Carlyle Hatchery.

Yearly, thousands upon thousands of bass, crappie, and several other species of game fish are raised here to be distributed to the rivers of Illinois.

More than 20 acres of ground comprise the hatchery, which is about 200 feet from the Kaskaskia River.

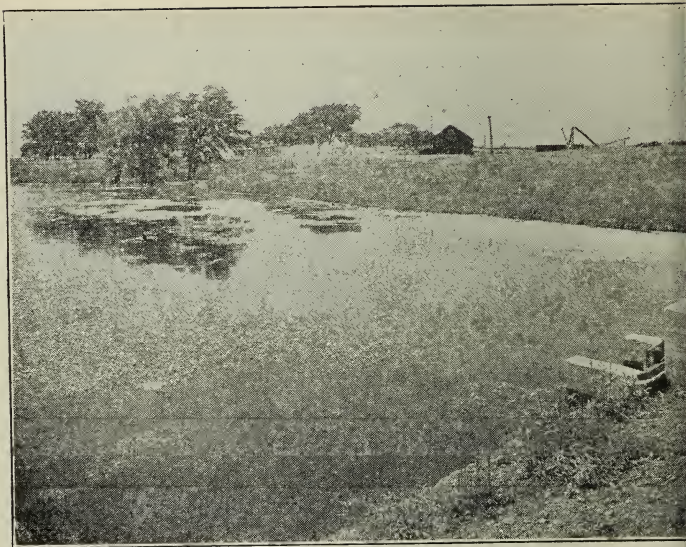
The preserve was established four years ago, and the Department started the raising of the fish in a large pond. In 1926, a smaller pond was made and stocked with various species of fish.

Distribution of the fish is accomplished by a large spillway, over which the fish go in high water and reach a third pond about 200 feet west of the rearing grounds. This third pond is in the river bottom and the fish are freed when the river overflows. This method of natural release of the fish is described as an "exceptionally efficient one" by fish experts. A "rescue pond" shortly down the river provides a haven for fish trapped in sloughs along the river. It is approximately two acres in area.

The grounds comprise two rearing ponds nearly three acres in size, with an extreme depth of about ten feet. A quarter-mile dike serves to impound the waters of the preserve, which are fed by adequate springs.

ROCKFORD HATCHERY

Eight miles northwest of the city of Rockford, 30 acres of land owned by the State Department of Conservation are to be found. Here in 18 acres of water the work of the Department in providing fish for the myriad Illinois sportsmen along the Rock River goes ahead yearly in three large ponds, separated by dikes and fed by large, bubbling springs located west of the hatchery.



The newly developed Hatchery at Wyanet



Mattoon Hatchery, placed in operation in 1928

For output, the hatchery ranks with the largest in Illinois. Four years ago, the land was purchased and improvements begun. The following year, 3,000,000 fish were removed from the hatchery, and last year efficient methods had increased the output nearly 300 per cent to 8,000,000 bass, blue gills, and crappies. More than 400 breeding bass are to be found in the pools now.

WYANET HATCHERY

Several hundred thousand "fingerlings," the offsprings of mature fish, will be hatched this year in the Wyanet Hatchery of the State Department of Conservation, located a mile west of the town of Wyanet and south of the Illinois-Mississippi Canal.

In two large pools, one approximately eight acres in size and the other about two acres, 400 bass and 5,000 pan fish, or more commonly the blue gills, crappies, perch and sunfish, are being bred this year. It is estimated that these fish will produce several hundred thousand fingerlings by the fall of 1928.

The output this year will be the first test of the hatchery's capacity, the project being established late in 1927. The entire preserve comprises $17\frac{1}{2}$ acres of property, all of which is fenced for protection and accessible by an excellent gravel road. The water for the project is supplied from the adjoining canal through a main, valve-controlled. A screened concrete culvert and drive separate the two ponds.

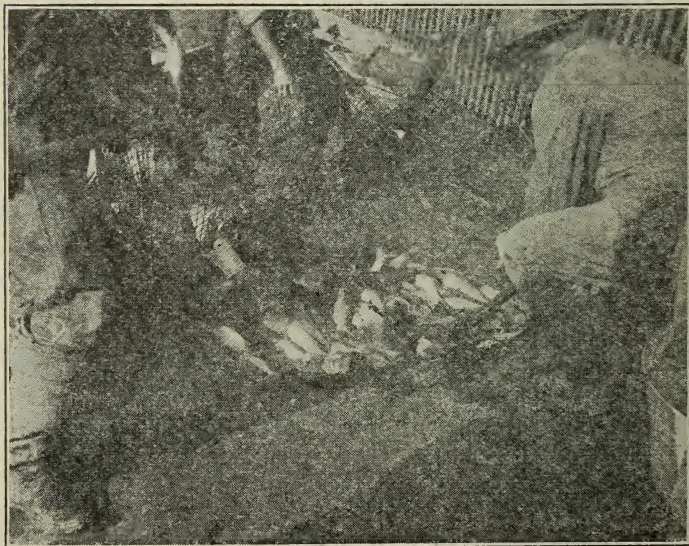
MATTOON HATCHERY

Illinois' most promising fish hatchery is to be found in a 20-acre project of the State Department of Conservation five miles south of Mattoon, near Paradise Lake in Coles County.

Two thousand feet of dikes impound the water of ponds extending over an area of nearly six acres. Despite the excellent breeding grounds, but 150 bass and 400



Spring Grove Hatchery, largest and most complete in the
United States



Rescuing fish from the backwaters of the Illinois River

crappie have been placed within the project, and it is estimated that 50,000 bass and a proportionately large number of crappie fingerlings will be hatched by the fall of 1928.

The transformation of the hatchery into an attractive project was accomplished this spring when 15,000 white pine, green ash, and tulip poplar trees were planted within the preserve by the Division of Forestry. The growth of these trees in later years is expected to make the hatchery one of the Department's most attractive projects.

SPRING GROVE HATCHERY

Eleven million fish from 35 acres of fish hatchery is the record attained by the Spring Grove Hatchery of the State Department of Conservation near the city of Spring Grove, Illinois, in McHenry county.

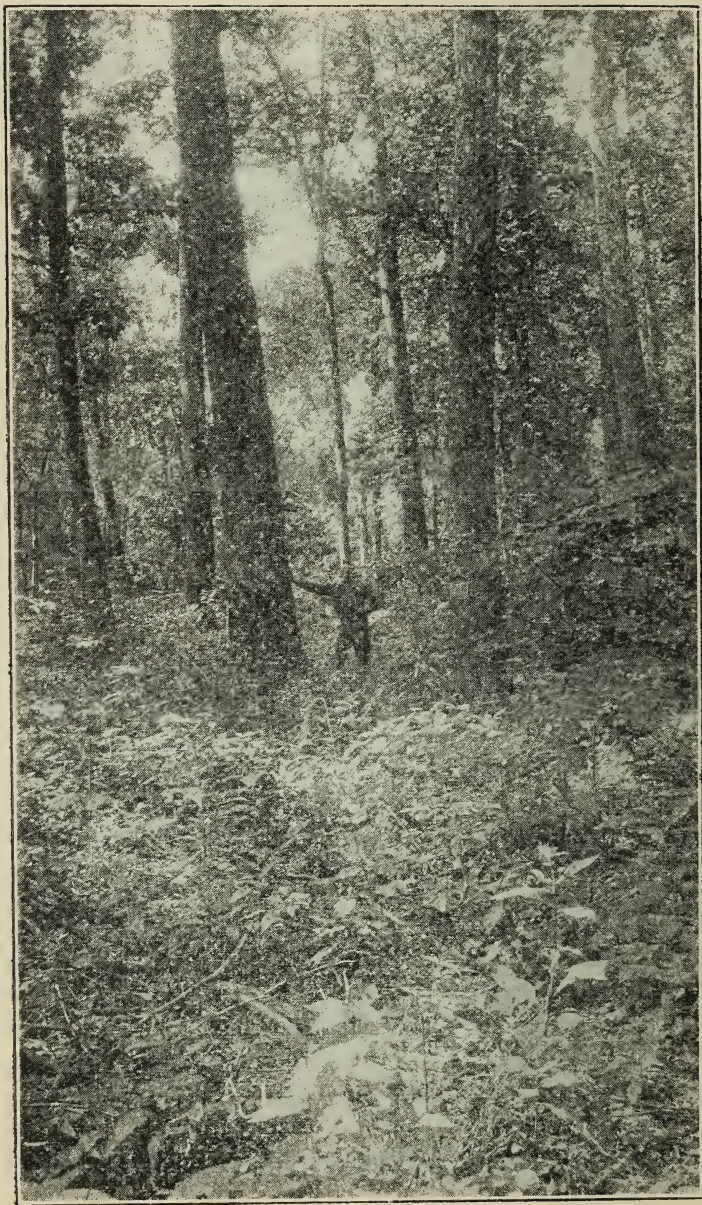
The hatchery is virtually the largest one in the State. Twenty-two acres of land are under water, thus providing adequate breeding grounds for the fish. Yearly, 10,000,000 bass, 1,000,000 perch, 1,000,000 crappie, 1,500,000 blue gills and 7,000,000 trout are produced.

In this hatchery, four ponds, one huge pool of 18 acres and the remaining three dividing up the other four acres, have been constructed. Upon this hatchery, the State has centered its greatest attention, making it the finest in Illinois and one of the best in America.

A huge hatchery building, where the 7,000,000 trout are produced artificially each year, the garage, workshop, and four small concrete storage ponds, in addition to the huge breeding pools, are to be found on the preserve.

Under efficient management, the hatchery yearly produces approximately twenty million fish, with a larger capacity possible if an extension of the work is desired.

It was upon this project that a State educational film was developed, covering the operation of the hatchery.



Bottomland timber, largely sycamore, suitable for crates and berry boxes. (Southern Illinois)

Reclamation of Fish

Whenever ponds or streams are reported to be suffering from drouth, the district inspector of this Department dispatches rescue crews to take the fish from these places and place them in the nearest available body of water, so that they may continue to live and propagate. During the last several years, more than 500 carloads of fish have been so transferred from drainage districts, and from streams and ponds that are drying up, and thus have been saved for the people of Illinois. A special railway car is used by the Department for this work. Its capacity is approximately 200,000 fingerlings or approximately 10,000 adult fish in one load. Fish rescue stations are maintained at Meredosia, Savanna, Havana and Ann. A reference to the map on page 322 shows the distribution of fish by this Department to the various counties.

SAVANNA FISH RESCUE STATION

Along the channels of the Mississippi, into hidden lagoons and bayous and sluggish sloughs, a couple of men in an improvised motor boat travel weekly. They represent the State Department of Conservation and their mission is to rescue the fish of the Mississippi.

Operating from the Savanna Fish Rescue Station of the Department, situated on the Mississippi River bank near the city of Savanna, Illinois, the main headquarters of the work is to be found.

Here men employed by the Department scout the river daily, seeking to preserve the fish of the river. In the backwaters and sloughs, fish frequently become "lost" and trapped. Unable to return to the river, thousands of them would perish yearly were it not for the efforts of the Department.

In an old motorboat, the men search these death-traps to find the lost fish. Removing them from the veritable prisons, the Department workers release them into the Mississippi again, thus saving the fish population of the State by many thousands during the course of a year.

Extensive new equipment is badly needed by the station to carry on its activities on the broad scale necessary, and plans for the rejuvenation of the station are being considered.

MEREDOSIA FISH RESCUE STATION

This was once a Federal fish rescue or reclamation station, along the lines of that at Savanna. It is located on Meredosia Bay, an expansion of the Illinois River noted for its fine fishing and hunting. There is a very complete equipment of buildings, boats, seines, trucks, etc., for carrying on the work of fish rescue in this very important region. Storage or retaining tanks are supplied with pure running water, which enables fish to be handled with a minimum of loss and to be kept until they can be transferred by trucks to the lakes and streams in need of restocking. The surrounding grounds are well shaded and the superintendent and his capable assistants are always on the alert to answer questions about their work. There is also a house boat which can be used by Department officials during the fishing and hunting seasons.

MUSSEL FISHERIES IN ILLINOIS

In Illinois the economic value of the mussel fisheries to the State has been too little known and appreciated. For this reason, Governor Small has encouraged every action of the Department of Conservation in its effort to return to Illinois the shelling industry that has been so seriously neglected. For the protection of its mussel fisheries which should amount to an annual business of approximately \$300,000 in the raw material, this administration has encouraged the passage of laws stipulating the methods of catch, size limit, and a protective closure scheme which may become effective at the discretion of the Department of Conservation. This provides for the closing of any stream or parts of streams in the State for a period of years. An agreement with the State of Iowa

and the State of Illinois through the respective Conservation Departments has closed and opened sections on the Mississippi River affecting musseling. The river is divided into thirteen ten-mile areas or sections, these areas alternating at five-year cycles. The open areas on the Mississippi River at the present time are as follows: Bellevue to Sabula, Clinton to Princeton, Bettendorf to Buffalo, Muscatine to Point Louisa, New Boston to Keithsburg, Oquawka to Burlington. The Rock River was closed against musseling in January, 1926, for a five-year period. This ruling of the Department was made not only to protect fish life in this wonderful scenic stream, but also to give the mussel beds time to recover from a rapidly diminishing supply of mussels. The work of the Department to aid the pearl button industry has been greatly helped by the United States Bureau of Biological Survey. It has been a pleasure for this Department to cooperate with the Federal agency in the propagation and protection of the mussels. Accomplishments of gigantic magnitude to the button industry can be brought about by an intelligent constructive program in the protecting and propagation of the mussel. Loyal cooperation has existed between the Department and the river men active in this work.

Governor Small Protects Trappers

Great injustice has been done trappers by irresponsible "green hide" buyers in the past and in order to correct the abuses to this splendid and growing industry, three new sections were added to the Game Code during the 54th General Assembly, which it is believed will drive the itinerant fur shark out of the field and put the business in the hands of responsible buyers under the direct supervision of the Department and its agents.

If You Want Game, Control Vermin

The crow and the blackbird do more destruction than is generally believed. They not only kill the young birds but the eggs of all birds are the natural food for crows

and blackbirds. The toll of the blackbird and crow exceeds the number of game birds killed by all the sportsmen combined. Campaigns for killing crows and blackbirds are encouraged by this Department at all times, and every effort should be made by sportsmen, and farmers as well, to rid the country of these greatest enemies of game, song and insectivorous birds. The ordinary house cat is also one of the great destroyers of bird life. When allowed to run, the house cat will meander over a territory of ten to fifteen miles during the night in search of young quail, pheasants and other young birds, and the loss of these birds by cats in every part of the State is enormous. Campaigns are on in many states to exterminate the meandering cat.

The Challenge of the Migratory Bird

Governor Small and his associates assumed the challenge of the wild water fowl in their fight for existence. The necessity for establishing migratory bird refuges is appreciated by every student and hunter of these birds. Illinois in the past few years has accepted this challenge and has established four State-owned refuges along the Illinois and Mississippi Rivers, with a total of approximately 5,000 acres of land and water. It is not generally appreciated by Illinois citizens that the Mississippi and Illinois River marshes afford the largest retreat for migratory birds anywhere in the United States.

Canada has done much to meet its obligation as defined under the treaty between the United States and Great Britain for the protection of the birds that migrate between these two adjoining countries. Canada has established eighty-nine refuges covering an area of 1,500 square miles of land and water. The Bureau of Biological Survey in Washington controls existing Federal refuges covering approximately 450,000 acres or 700 square miles. The Federal-controlled Upper Mississippi Wild Life Fish and Game Refuge has approximately 41,000 acres of land and water in Illinois. Its location in Illinois is from Rock Island north to the State line. This tract is

the greatest highway for migratory birds in America. The Illinois River marsh region is recorded by the United States Biological Survey as constituting the most important concentration center for migratory birds in the United States. The Federal Survey banded 6,000 ducks and several hundred of these have been recovered. A reference to the accompanying map, will show the results of travel of these birds. Only the outlying points of recovery are recorded. Sportsmen from east, west, and the south, journey to the supreme hunting ground along the Illinois and Mississippi Rivers for their annual duck hunting. All hunting activities are directly controlled by the game code and are closely guarded by this Department. The field representatives of the Department of Conservation are doing much to support Governor Small and the Director of the Department in their desire to develop more honest sports for the greatest number of people.

More Public Shooting and Fishing Grounds

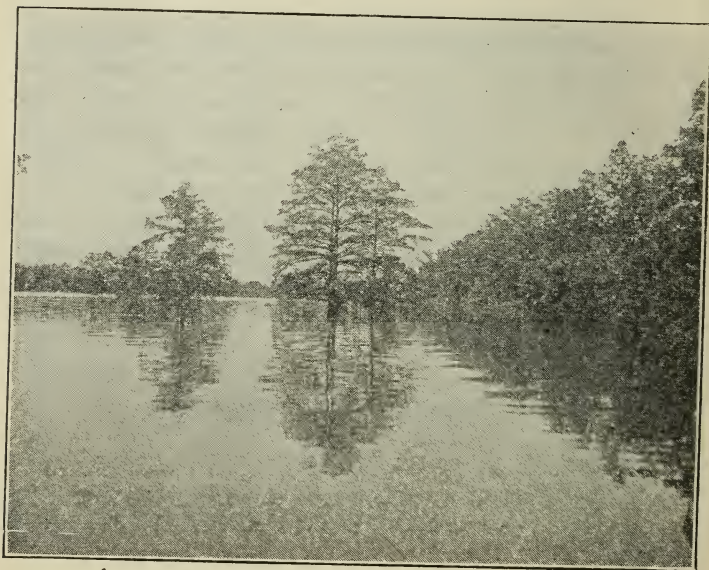
The Department has given its support to a movement for the acquisition of public shooting and fishing grounds where the people of the State may hunt, fish, camp, and enjoy themselves in preserves unequalled by any in the middle west. To that end, a bill was passed by the recent General Assembly authorizing a bond issue of twenty million dollars for the purchase of such lands. It is planned to retire these bonds from license fees received from the sportsmen. It will be voted on by the people at a referendum in the 1928 election, and is being enthusiastically supported by Illinois sportsmen and all friends of conservation.

OQUAWKA GAME REFUGE

About 200 acres of land, skirting the banks of the Mississippi River six miles north of Oquawka, comprises one of the State Department of Conservation's game refuges.



Large group of ringneck breeding hens and cock pheasants



Horse Shoe Lake, Southern Illinois' new game and fish refuge

Here in this land, half bottomland timber lying between a slough and the Mississippi and half sandy upland populated by a scrubby growth of oak, nature's wild life roams free and undisturbed, protected by the Department.

Purchased two years ago, the tract has laid undisturbed until this spring, when 20 acres of sandy land along a nearby highway was planted to white pine. A fence and fire line about the preserve offer a protection to the plantation.

Under the supervision of Gus H. Radebaugh, Director of the Department, plans are under way to improve, develop and further protect this State preserve. The plans to be followed have not been definitely decided upon by Mr. Radebaugh, but it is anticipated that a general conservation scheme will be worked out shortly.

HORSE SHOE LAKE FISH AND GAME REFUGE

Here in the south, we have something different, 3,100 acres of virgin cypress swamps, an island, and flooded bottoms of tupelo gum—a type fast vanishing in Illinois, worthy of saving for future generations. As one author says, "In the heart of a cypress country, the feeling comes to me that I am in another world, a world of millions of years ago, and that all around me are the ghosts of long-vanished things, belonging to that far-off, unknown, and unknowable time."

The cypress is among the most ancient of our native trees, a survival from an earlier age, when these dense forests covered great areas of North America. Without a few sample tracts like this in our State, we would be compelled to go to Louisiana to see the cypress trees and the "knees" thrusting themselves above the surface of the water to take in air.

Not only good fishing may be found in this old oxbow lake shown herewith, but in the fall and spring and even all winter, will be found ducks and Canada geese,

which, like those on Jack Miner's Ontario preserve, know that here they can be safe for a period before winging their way south or north with the call of the seasons. Corn can be provided for them on the farming land on the island, with plenty of cover and shelter, because the island if left for a few years, soon returns to forest. A purple buckeye, new to the State, has been recently found here by the Chief Forester of the Department. The American lotus also occurs and can be favored by maintaining the proper water level of the overflow lands.

WOODFORD COUNTY AND SPARLAND PUBLIC SHOOTING GROUNDS

Two properties may be listed under the heading of Public Shooting Grounds, one the Woodford County Preserve, of 1,721 acres, which is across the Illinois River from Rome, Illinois, the tract having been formerly known as the Rome View Drainage District. It represents the first example of the State's taking over this kind of land which may be more valuable for its aquatic and game resources than for agriculture, especially with the high drainage taxes. The Sparland tract is another public hunting ground, in Marshall county, of about 760 acres, formerly a part of Mud Lake and Weis Lake, lying north of Sparland on Route 29.

Stream Sanitation

The pollution of streams by city sewage and commercial activities is the challenge of our times. It admits of no defense and should be prohibited by Federal and State laws. More than fifty per cent of all our waterways are mere sewers for carrying the waste from our communities. It not only means death to all things living dependent upon these streams, but it is the direct cause of epidemics of typhoid, malaria, and kindred diseases.

Domestic city sewage is the chief offender and cities should be enjoined from emptying death-dealing sewage into any stream. It is useless to attempt to stock polluted

streams with fish or provide sanctuaries for migratory game birds along these waterways. They will not survive. Cities and industries may have a fee simple title to a hundred feet along the bank, but they have no inalienable right to spread typhoid, malaria and other diseases among men and women and children and all things living for a hundred miles below town. Not only fish and game require clean water, but human life is at stake and the Department of Conservation asks all citizens to cooperate in bringing abatement of this nuisance. That progress has gone forward in sanitary measures is evident by the twenty-one cities in Illinois that have taken advantage of the Sanitary District Law of 1917 and have built modern sewage treatment plants. Biologists, chemists and engineers have given to civilization a way to care for their wastes. The pollution problem solved by these scientific agencies is now in the hands of the citizens and delays in adopting proper methods for the treatment of municipal and industrial refuse is directly chargeable to the taxpayers and pollution contributors, in our respective communities. A duty which a civilized people owes to civilization is to make proper disposition of its waste. The biologist recognizes that "Sanitation means civilization; not only success, but comfort and happiness, and even more than that—it means existence. The penalty of ignorance and carelessness comes in the form of disease, death and destruction."

Distribution of Pheasant Eggs

Continuing the policy of giving the hunter a valuable consideration for his license fee, the Department of Conservation has distributed this season approximately 40,000 English or Ringneck Pheasant eggs, shipments being made to every county except two in the State. Young pheasants are becoming plentiful in every section of the State and in a short time will offer a splendid return to the sportsmen.

Many inquiries reach the Department relative to pheasants killing quail and destroying quail eggs. Stories

and rumors of the destructive character of the pheasant are entirely without any foundation in truth. The habitat of these birds is not the same and they rarely come in contact with each other. Even when confined, they are the best of friends. The pheasant has had to bear the sins of the crow and blackbird.

The Department this year initiated an order system for the distribution of pheasant eggs. This was done to establish closer relationship with the persons receiving the eggs, making it possible to secure some very valuable data in regard to hatch and number of young birds liberated. In an endeavor to increase the percentage of hatch, the Department prepared a circular entitled, "How to Set Pheasant Eggs and Care for Young Birds," which was sent out with each setting of eggs. Postcard notification of receipt of eggs was mailed to the Department by the person receiving shipment. It must be remembered that young and old pheasants must have proper cover and food to grow and reproduce. Vermin must be controlled, winter feeding is important, and if citizens of this State will respect the game laws controlling the shooting of pheasants, Illinois in a very short time will be densely populated with this bird of rare beauty. It is a sporty and fast flier, yet possesses habits of distinct advantage to the farmer. The Department is contemplating the distribution of approximately 15,000 young birds this year, in addition to the egg deliveries.

YORKVILLE GAME FARM AND HATCHERY

Illinois' lone preserve where both game and fish are bred, is located on a 71-acre tract of land one mile north of the village of Yorkville and on the north bank of the Fox River at the edge of the village limits.

Here the State Department of Conservation has maintained for three years, fish and game projects, which will be extended on a broader scale during the next few months.

Approximately 1,000,000 fish and 30,000 eggs of pheasants are produced yearly on the farm-hatchery. The game preserve occupies 50 acres of land, while the fish project is contained in 21 acres, 18 of which are ponds for the breeding of fish.

This year there are approximately 1,000 fish breeding in the ponds, the first active work since 1925 by the Department here.

In the game preserve, 40 golden pheasants, 12 silver pheasants, 16 Amherst pheasants, 900 Ringneck breeding hens, and 325 ringneck breeding cocks, are protected within the confines of the project.

Two equipped hatchery buildings, three feed houses, two chicken houses, 620 rearing coops and one frame residence comprise the improvements on the preserve, in which work is carried on in one of the most extensive breeding activities in the State.

ALTON GAME FARM

Nearly 400 pheasants, bred for the purpose of propagating the game in the State of Illinois, are cared for on the Alton Game Farm of the Department of Conservation, located at the State Hospital grounds about one and one-half miles north of the city of Alton, Madison County.

A 32-acre tract of land provides the breeding and feeding grounds for the huge flock, which yearly is providing excellent game conditions for Illinois sportsmen. Thirty acres of the land are used for rearing ground for baby pheasants, which number 2,500 to 4,000 each year.

The Department of Conservation in all its activities is wholly maintained without costing any citizen of the State of Illinois one cent of taxes. Its entire revenue is derived practically from the sale of licenses to those who care to hunt and fish. All its expenses for salaries, wages, wardens, equipment, purchase of lands for hatcheries, fish and game preserves, reclamation work, distribution of stock fish, pheasants, quail, wild game for propagation,

upkeep of hatcheries, repairs, permanent improvements, etc., are paid from the Game and Fish fund, without the assessment of one cent of taxation. A reference to the table will show the steady and sure growth of the revenue collected by this Department.

All monies received by the Department of Conservation go into this fund and are appropriated by the General Assembly to meet the needs of the Department.

The Game and Fish funds cannot be otherwise appropriated by the Legislature. The total amount appropriated by the General Assembly for the present biennium exceeds one and a quarter million dollars.

Projects Accomplished

1. Eleven fish hatcheries constructed and maintained.
2. 67,000,000 estimated delivery of fish from hatcheries annually.
3. Four fish reclaiming stations, estimated as reclaiming 20,000,000 fish annually.
4. Two game farms for rearing pheasants.
5. 55,000 total production of pheasant eggs per year.
6. 15,000 total production of pheasants yearly.
7. 30,000 to 50,000 pheasant eggs distributed to interested persons annually.
8. 60 to 100 railway cars of fish delivered to Illinois lakes and rivers each year.
9. 50 to 100 truck loads of fish delivered annually.
10. 15,000,000 wall-eyed pike artificially hatched annually.
11. 10,000,000 lake trout distributed annually.
12. Three aquatic research laboratories.
13. Two public shooting grounds.
14. Five State-owned game refuges.
15. One ornithological research laboratory.
16. Defining of three zones, northern, central, and southern, to more intelligently establish the closed and open season of game.
17. Practically a new law governing the taking of game and aquatic life from our State.
18. Establishment of 14 conservation districts in the State.
19. Detailing Inspector to be responsible for conservation districts.
20. Instituted definite functional organization for Department control.

21. Protection of forests of the State from fire.
22. Publication of educational booklets on conservation activities.
23. Cooperation with State Department of Public Health in stream sanitation work.
24. Educational exhibits at fairs and exhibitions.
25. Collection of statistical information on forests, fish, and game.
26. Three reels of motion pictures prepared for use of interested citizens:

"Helping Nature win."

"More Fish for Illinois Rivers and Lakes."

"The Modern Sewage Treatment Plant."

27. Supervision and control of licenses of 29 different kinds, totaling 765,107 during 1927-1928.

28. Department foresters have examined and reported upon over 5,000 acres of land in game refuges, and other land owned by the State Conservation Department, as well as land recommended for purchase as State forests.

29. A cooperative agreement has been worked out with the U. S. Forest Service under Sections 1-3 of the Clarke-McNary Law to protect from fire 130,000 acres of timber in southern Illinois—thus putting Illinois in line with other progressive states in fire protection.

30. The Division of Forestry has written, published, and distributed 21,000 free copies of the book, "Forest Trees of Illinois—How to Know Them," which has met with an unprecedented demand from the schools, Boy and Girl Scouts, and the general public, necessitating the publication of a third edition.

31. A film slide consisting of 87 pictures on "Illinois Forestry" has been compiled for lectures and for fair and window exhibits. A printed syllabus has been prepared to accompany and explain the pictures, which any teacher can use. A motion picture film on forestry, "Helping Nature Win," is another publicity feature.

32. The Chief Forester has cooperated with the Natural History Survey, Urbana, in completing another book on "The Native and Naturalized Trees of Illinois," a work started in 1924 at Urbana.

33. Manuscript completed on a bird book for Illinois, which will undoubtedly be more popular than the one on trees.

34. Responsible for marketing, with the cooperation of Illinois nursery-men, about 87,000 forest tree seedlings, of which over 50,000 were planted on State lands during April and May, 1928, including 15 acres of white pine at the Mattoon Hatchery, 20 acres at the Oquawka Game Refuge, and

10 acres at the White Pine Grove, near Oregon, Illinois. This number should be more than doubled next year on State and private lands.

35. Carried on educational and publicity work in forestry in Izaak Walton League chapters and the public schools whenever opportunity offered, with two special workers among the Women's Clubs. A special effort was made during American Forest Week, April 22-28, to reach large audiences.

36. Developed a complete filing system of information on State and National forestry, so that all inquiries can be intelligently and quickly answered.

37. Exhibits have been prepared for Boy Scout Merit Badge shows in Chicago and Springfield and for the State Fair at Springfield, intended for educational purposes, to more closely link up the idea of forestry with fish and game propagation.

Forestry Policy

a. Protection of our forests from fire, for the sake of growing better timber, encouraging birds and producing more game.

b. Extension of our present forests by natural means, or by planting where necessary, through State initiative and cooperation.

c. Acquisition of State forests for demonstrations in the growing of timber, the prevention of soil erosion, the more profitable use of our waste lands, and to afford places of recreation and study.

d. Education of the public by books, such as "Forest Trees of Illinois," to appreciate more highly the native trees, birds, and wild flowers.

Projects Under Way

1. Posting of rivers that are free from gross pollution.
2. Reduction of gas in the Illinois River.
3. Definite program of vermin control.
4. Promote study of quail production and propagation.
5. Use of the license button to be worn in the field by hunters and fishermen.
6. Uniform all Department inspectors and investigators.
7. Rules and instructions for all Department employees.
8. Concentrate effort of Department on stream pollution in cooperation with the State Department of Public Health.
9. Top minnows (*Gambusia affinis*) production for mosquito eradication, in cooperation with the State Department of Public Health.

10. Prepare double fold circulars, for free distribution on the following subjects:

- (1) Wild game bird propagation.
- (2) Rearing ringneck pheasants.
- (3) What we know about quail.
- (4) Rearing wild water fowl.
- (5) Feed for ducks and geese.
- (6) How to increase bird population.
- (7) Planting wild food for birds.
- (8) Nesting boxes, bird propagation.
- (9) Bird enemies.
- (10) The Illinois carp.
- (11) Raising fur-bearing animals.
- (12) Care of pelts.
- (13) Fresh water farming.
- (14) Raising brook trout by artificial methods.
- (15) Raising fish Nature's way.
- (16) Fish ladders and their care.
- (17) Fish control program.
- (18) Building and care of camp fires.
- (19) Vermin control.
- (20) Musseling in Illinois.
- (21) Uses of the gar fish.
- (22) Fishing and hunting in Illinois.
- (23) Illinois fishing and hunting clubs.
- (24) Illinois commercial fishermen.
- (25) Native animals of the State.

"If you want more forests, fish and game for Illinois, respect State and Nature's laws."—Director Radebaugh.

Military and Naval Department

BRIGADIER GENERAL CARLOS E. BLACK, *The Adjutant
General*

WHEN the National Guard of Illinois returned from Overseas duty during the World War, the officers and men were automatically discharged from the service. The only force the State then had was the Illinois Reserve Militia, which was composed of men who had entered the service of the State for the period of the emergency only. It became necessary that immediate action should be taken to reorganize the National Guard because the State was devoid of any military organization.

The National Defense Act of 1920, passed by the Federal Congress, provided that certain organizations of troops, consisting of all branches of the service, would be allocated to and organized in the several states. To the State of Illinois was assigned the reorganization of the 33d Division, which was to constitute a part of the troops of the State. In addition to the units composing the 33d Division, certain Corps and Army troops were also allocated.

The organization, as finally agreed upon between the Federal and the State Governments, consisted of the following units:

DIVISIONAL TROOPS:

33d Division

Division Headquarters and Headquarters Detachment.

Division Special Troops, consisting of:

Headquarters and Headquarters Detachment.

Medical Department Detachment.

Division Headquarters Company.

33d Military Police Company.

33d Signal Company.

- 33d Tank Company.
- 108th Motorcycle Company.
- 108th Ordnance Company (Maintenance).
- 65th Infantry Brigade, consisting of:
 - Headquarters and Headquarters Company.
 - Medical Department Detachment.
 - 129th Regiment Infantry.
 - 130th Regiment Infantry.
- 66th Infantry Brigade, consisting of:
 - Headquarters and Headquarters Company.
 - Medical Department Detachment.
 - 131st Regiment Infantry.
 - 132nd Regiment Infantry.
- 58th Field Artillery Brigade, consisting of:
 - Headquarters and Headquarters Battery.
 - 122nd Regiment Field Artillery.
 - 124th Regiment Field Artillery.
- 108th Combat Engineers.
- 33d Division Air Service.
- 108th Medical Regiment.

CORPS TROOPS:

- 123d Field Artillery (155 mm Howitzer).
- 202nd Coast Artillery Regiment (AA).

ARMY TROOPS:

- 22d Cavalry Division.

106th Cavalry Regiment (less 1st Squadron and Medical Department Detachment, 1st Squadron).

Special Allotment.

- 8th Regiment Infantry (Colored) (8th Illinois).

The first step in the rebuilding of these organizations was the selection of the Commanding Officers. It was found that the public was in a state of apathy, so far as interest in military was concerned. The officers chosen for this duty were men who had had military experience in the World War and many with prior experience in National Guard work. The ex-service men, realizing the immediate need of a military force within the State, furnished the backbone of the organization. In many instances, they assumed the duties of organizing companies in their immediate localities, which, in turn, were to become units of the larger organization.

The next problem was that of housing. The State owned but few armories. It was, therefore, necessary to rent vacant buildings where they could be procured, con-

vert them into suitable places for the housing and training of the personnel, and for the safe storage of property. Very seldom is a building found that admits of easy conversion to the requirements of a military organization. A very important factor, too, was the safe storage of property.

Under the provisions of the National Defense Act, the Federal Government assumed the burden of furnishing all equipment for these organizations. This included pay, clothing, arms and transportation, both motor and horse drawn. This equipment was furnished by the Federal Government with the provision that the State must furnish safe and proper storage for it, and that it must be used for none other than military purposes. To receive pay, certain standards of efficiency would have to be met.

When Governor Small took office in January, 1921, the National Guard consisted of but a few scattering units throughout the State, there being not one complete battalion organized. Several of the units of the Illinois Reserve Militia were still in the service on paper, awaiting muster-out, in accordance with their contract of enlistment.

Realizing the seriousness of this situation, soon after his inauguration, Governor Small took steps for its correction by directing that the units allocated to Illinois be formed immediately and mustered into service of the National Guard.

Where State-owned armories were available, units were organized and stationed in them. At other locations, troops were organized, quarters were obtained by rental, and remodeled to suit the needs of the service.

There next remained to be procured, a suitable training location. The Federal Government was disbanding Camp Grant, near Rockford, Illinois, and by negotiation, the State was able to secure the grounds and such of the buildings as were of value for use of the National Guard of Illinois for training. The lease tendered by the Federal Government to the State of Illinois was accepted and

signed by Governor Small. It gives to the State of Illinois, without cost, all utilities and grounds, known as Camp Grant, with the provision that so long as it is used for military purposes, and the Government has no use for it, the State may use it. It was the only site in the State of Illinois that approached the accommodations required.

Organization

The basis of the organization of the National Guard is population, and the assignment of troops to different localities was based on the density of population.

Division Headquarters and Special Troops connected with it, were assigned to the city of Chicago because it is desirable that these troops be located close together.

The 65th Infantry Brigade, consisting of the 129th and 130th Regiments of Infantry, was assigned to the State outside of Cook County. An imaginary line was drawn from west to east across the State just north of Peoria and the territory north of that line was assigned to the 129th Infantry and that south to the 130th Infantry. These regiments were to be re-located and were given the same numbers as those which served in the War time Thirty-Third Division.

The same principle in organizing the 66th Infantry Brigade prevailed. It consists of the 131st and 132nd Regiments of Infantry, which succeed the War time organizations of that designation and originally were from that city.

The 58th Field Artillery Brigade was also organized in Chicago, as the 122nd and 124th Field Artillery Regiments are the logical successors to similar organizations of War time designations.

The 108th Combat Engineers, 33d Division Air Service, and the 108th Medical Regiment were also located in Chicago because of the great need of a large number of specialized men which were procurable from the Public Service Corporations in Chicago for the Engineers; from the great reservoir of technical men with experi-

ence for the 33d Division Air Service, and, because of the great number of Medical Schools and Hospitals, the best type of officers and men for the Medical Regiment would be available.

The 123d Field Artillery was located in Monmouth and Galesburg. A large number of officers and men from that locality served with the 123d Field Artillery in the World War.

The Second Squadron of the 106th Cavalry was located and organized at Springfield and Urbana.

The 8th Infantry (Colored), which served as the 370th Infantry during the World War, was allocated, two Battalions to Chicago and one Battalion downstate.

Subsequently, a regiment of Anti-Aircraft, designated as the 202nd Coast Artillery (Anti-Aircraft), was allocated to Illinois and this was assigned to Chicago.

Receipt of Property

As soon as these organizations were ready for muster-in, they were inspected by the Federal Government and if found to be satisfactory, they were accepted. Their initial equipment was then furnished to them by the Federal Government and the problem of storage for this equipment became acute.

Housing

The housing of troops and the storage of equipment are of paramount importance. In order to comply with the Government requirements, regarding the safety of property, and so that the troops might have suitable housing facilities and training, armories were built at Kankakee, Danville and Peoria, for the use of the organizations located at those stations.

The Drill Hall for the uncompleted armory of the 122nd Field Artillery in Chicago was built; the building used as an armory by the 202nd Coast Artillery (AA), was purchased; and two hangars, combining the armory and hangar features, were built at the Municipal Airport in Chicago to house the 33d Division Air Service. All

State armories, in addition to the above, were made use of and troops stationed in them. Where no armories were available, the most suitable buildings for the purpose were rented, remodeled to fit the military needs and occupied. Armory sites at Elgin, Joliet, Canton and Decatur have been purchased, but no buildings have as yet been erected on them.

A site was also acquired in Washington Park, Chicago, for the armory of the 124th Field Artillery. Appropriation has been made for this building and plans and specifications are now being prepared.

Training

It is not enough that troops should be trained, only, in an armory. There they secure the fundamentals, but it is necessary that they go into the field for two weeks each year and receive that part of their training which cannot be given in an armory.

To do this, it became necessary to secure a site of ground suitable for this work. Several thousand acres of varied ground are required. Due to the density of the population of Illinois, and its well known level terrain, such a site was not owned or controlled by the State. The Federal Government at this time was dismantling, with the idea of abandoning, Camp Grant where several thousands of Illinois soldiers had been trained during the World War. It consisted of over 3,000 acres, and while it was not all that was needed, it was better than anything else available.

Governor Small entered into negotiations with the Federal Government, and as a result of his efforts, the State entered into an agreement with the Federal Government to use this reservation for the training of the National Guard of the State. The Federal Government looked upon this with favor and, as a result, they gave the ground to the State under the terms of a Revocable License, which provides that so long as the State uses it for the purpose intended, and that there is no major emergency in which the Government might need it, the State may use it indefinitely.

When taken over by the State of Illinois from the Federal Government, after years of idleness and through neglect of proper care, it was a wilderness of underbrush, noxious weeds and debris. The buildings, which were used during the cantonment period, were with a few exceptions of that particular type of construction and, due to lack of care, were dilapidated and in useless condition. It became necessary that the grounds be cleared of these old buildings, foundations of wood and concrete removed, and the ground put in suitable condition for a tented camp. This has been done.

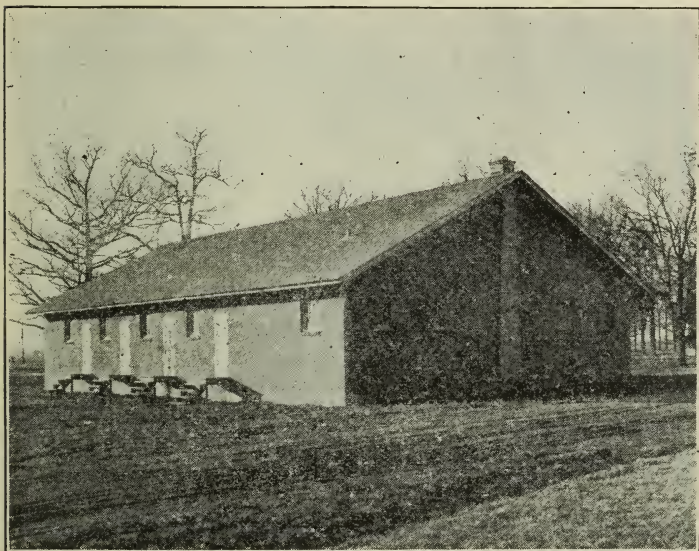
In their places, there are now modern Mess Halls, Latrines and other buildings, suitable for the needs of the National Guard. Through this transformation that has taken place, Camp Grant now ranks among the most modern military camps in the United States. To-day, the farm areas compare favorably in appearance with other farms in the community. By permitting the farmers to till the ground, the houses and barns have been put in a presentable and habitable condition. The fences have been repaired and in some cases, rebuilt. The fields, once all weeds, are now put to some good purpose and the present method, when compared with the condition the areas and farms were in, prior to the State taking over the Reservation, has received much favorable comment. Repeatedly, the residents of Rockford and adjoining communities say that the Camp Grant Reservation is now a credit rather than a disgrace to the community.

There remains still much work to be done. Additional Mess Halls need to be built to complete the complement for the enlisted men. The Officers' Mess Halls and Latrines should follow in future priorities. The program of construction and rehabilitation is a definite one.

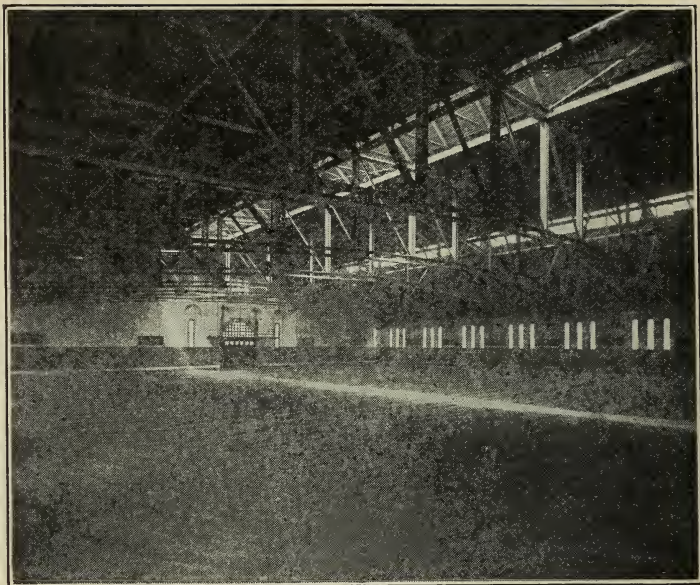
The Camp Grant Reservation is not large enough to permit the training of the four Artillery organizations of the National Guard of Illinois, due to its limited areas and the density of population surrounding it. To obviate this and make it possible for Illinois to train her own troops within the borders of the State, additional ground



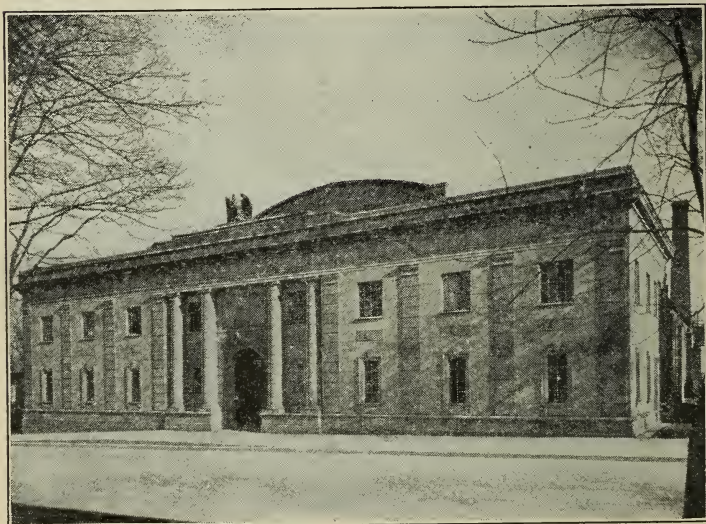
202nd Coast Artillery Armory, I. N. G., Chicago



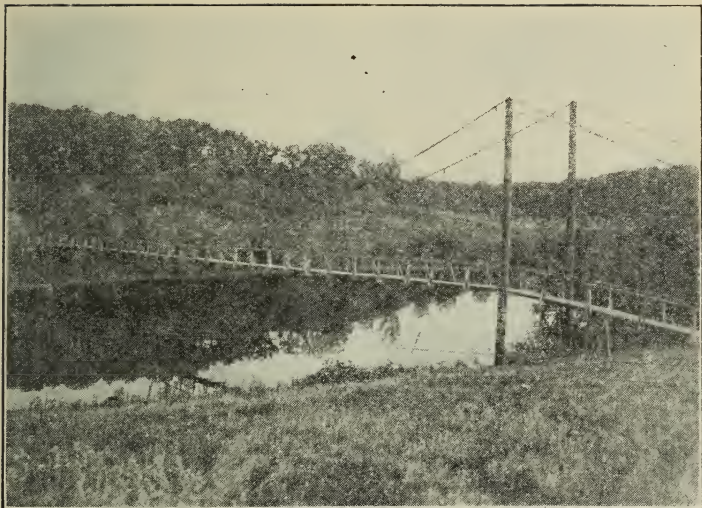
One of the 31 dining halls for enlisted men at Camp Grant



Drill hall, 122nd Field Artillery Armory, Chicago



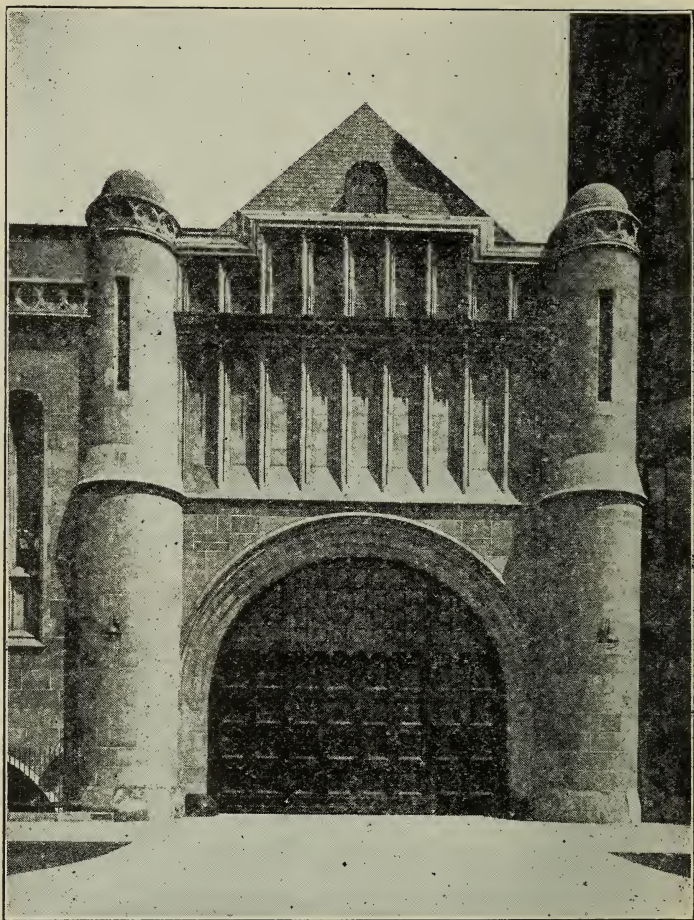
New Illinois National Guard Armory at Kankakee



Suspension bridge built by engineers of the Illinois National Guard, Camp Grant



Recently built I. N. G. armory at Danville



Beautiful entrance gates, 122nd Field Artillery Armory, Chicago

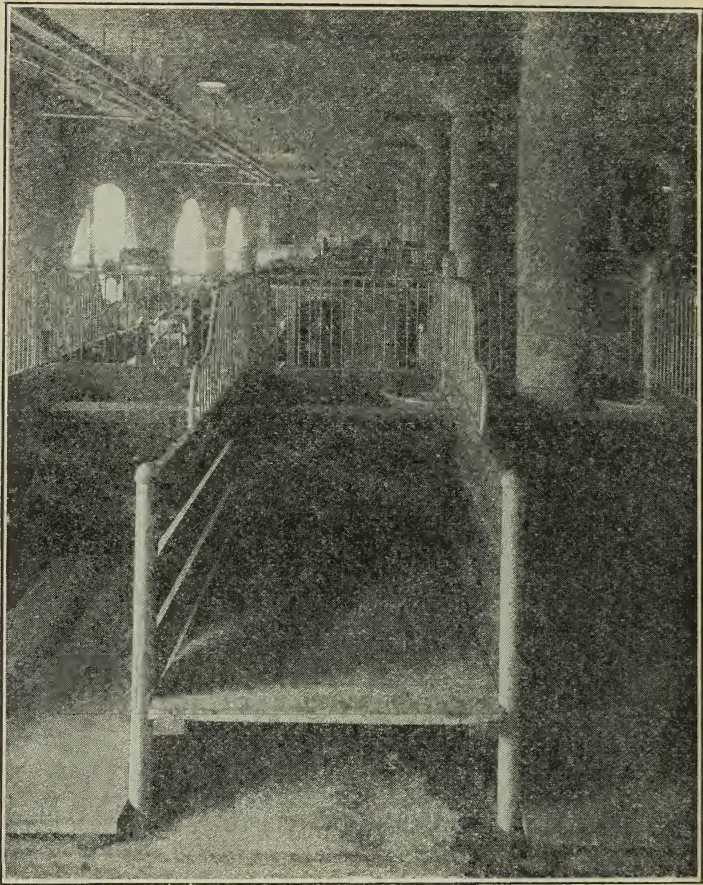
is necessary. It is highly desirable that all troops should be trained together because they work as a team rather than as separate organizations or arms of the service.

The National Guard of to-day is equipped for active service. The following partial list of articles indicates to a degree the clothing and equipment on hand:

Breeches, service, cotton	29971
Breeches, service, wool, o.d.	16777
Caps, service	13211
Coats, service, cotton	15655
Coats, service, wool, o.d.	15962
Hats, service	14667
Leggins, canvas, mtd.	3837
Leggins, spiral, wool, o.d.	12238
Shirts, flannel, o.d.	28520
Shoes, service	27336
Machine Guns, cal. 30 M-17	208
Automatic Rifles, cal. 30, M-18	535
Rifles, U. S. cal. 30, M-03.....	5908
Pistols, Automatic, cal. 45, M-11.....	3588
Revolvers, cal. 45, M-17	3455
3" Stokes Trench Mortars	9
37 mm Guns	14
75 mm Guns	48
75 mm Guns A-A	6
155 mm. How.	8
Airplanes	9
Tanks	7
Tractors, 5-ton	31
Trucks	112
Searchlights	2
Ambulances Motor	13
Ambulances Horsedrawn	10
Wagons	180
Harness, Escort Wagon	618
Harness, Artillery	786
Harness, SS	257
Horses	120
Tents, wall, large, complete	104
Tents, wall, small, complete	687
Tents, pyramid, complete	2400
Range, field, No. 1 w/equipment	164
Range, field, No. 2 w/equipment.....	30
Kitchens, rolling	29
Water, tanks (carts)	49

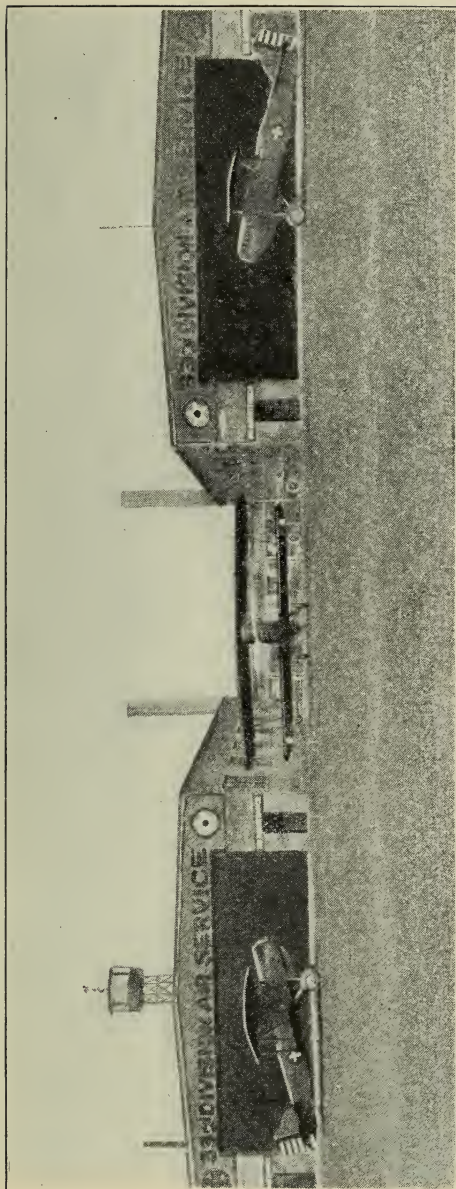
Personnel

The total allocated strength of the National Guard of Illinois, as authorized by the Federal Government, is 9427. Three times during the last year, this limiting strength has been exceeded and it became necessary to reduce the force by discharge to the level allowed. The

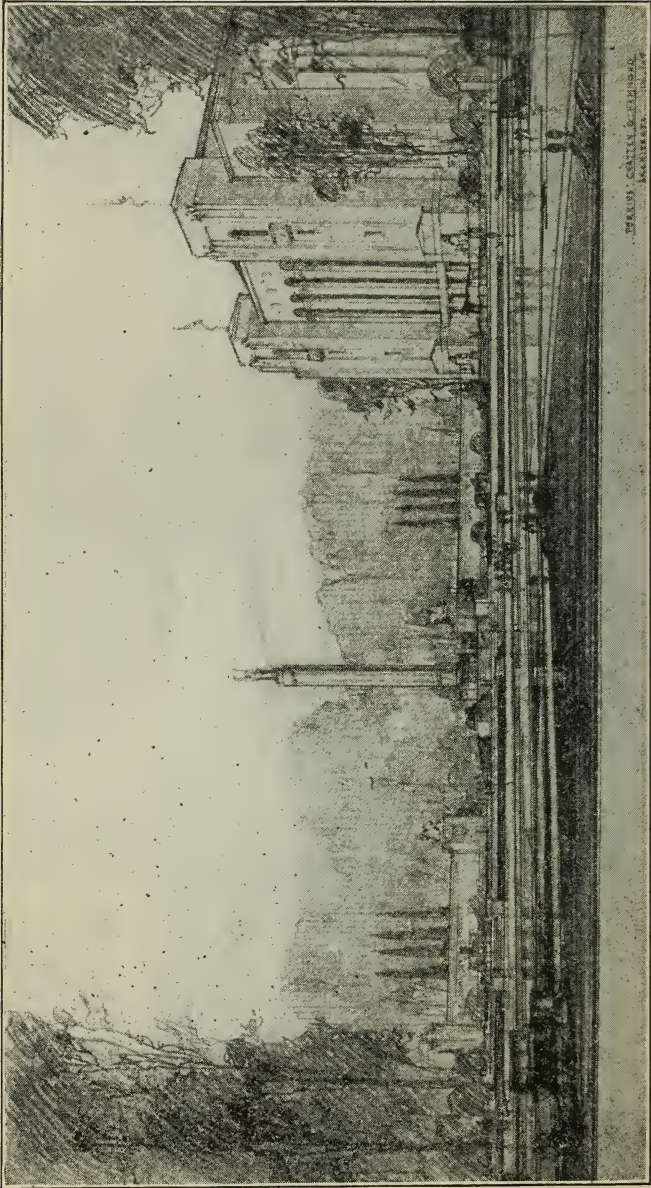


Sanitary, modern stalls in basement of 122nd Field Artillery Armory, Chicago

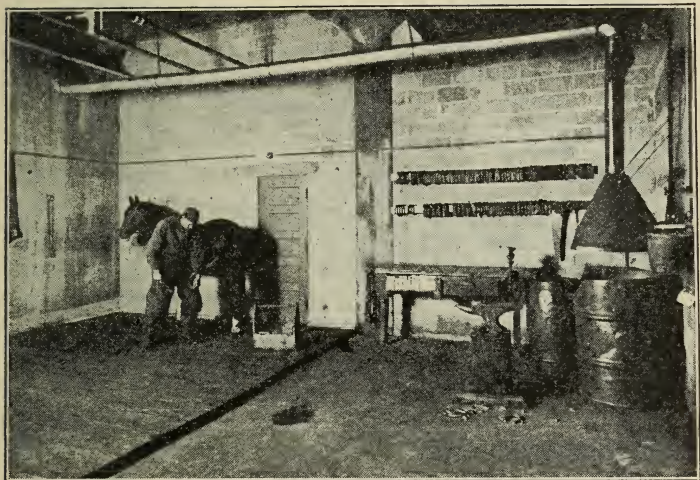
personnel of the officers and men of the National Guard of to-day has never been excelled. The officers are devoting themselves assiduously to the study of military problems and subjects necessary to bring them to a high standard of efficiency, which must be attained in order that they may function properly. This work is being accomplished in a true soldierly spirit by means of armory



Hangars erected by the State at the Municipal Flying Field, Cicero, for use of the Air Corps, I. N. G. Col. Lindbergh's "Spirit of St. Louis" was the first plane to occupy the hangars, and the famous flyer termed them the "best in the Chicago District"



Proposed 124th Field Artillery Armory, to be erected in Chicago. When completed, it will be unsurpassed by any similar building in the United States



Modern blacksmith shop in basement of 122nd Field Artillery Armory, I. N. G., Chicago

drills, field training camps, service schools and correspondence courses. The enlisted personnel is composed of an excellent type of young manhood with a high state of morale, with an ever increasing interest in things military.

The result of the training of the Illinois National Guard has been the subject of communications of commendation from eminent Army Officers, who are competent to judge of its quality and of its organization. These communications, in brief, have indicated a very high state of morale and a satisfactory degree of efficiency within the ranks of the present National Guard. It is a real institution conducted as a business and is on a solid substantial foundation.

Illinois Naval Militia

The Illinois Naval Militia has been reorganized and re-located as follows:

FIFTH BATTALION.

Division.	Location.
Headquarters	Chicago
20th (Deck)	Chicago
21st (Engineer)	Chicago
22nd (Deck)	Chicago
23rd (Deck)	Chicago
24th (Deck)	Chicago
30th (Deck)	Peoria

SIXTH BATTALION

Headquarters	Chicago
25th (Engineer)	Chicago
26th (Deck)	Chicago
27th (Deck)	Chicago
28th (Deck)	Chicago
31st (Deck)	Rock Island

The present strength of these organizations is 56 Officers and 683 Men.

The equipment for this Naval force is likewise furnished by the Federal Government. Each year, fifteen days are spent on a cruise on the Great Lakes. The boat on which this cruise is made is the Wilmette, which is equipped and maintained by the Federal Government.

The State owns an armory site and an appropriation has been made for the erection of an armory on this site, which is located on the shore of Lake Michigan in Grant Park, at the foot of Randolph Street, in Chicago.

Rifle Ranges

In this country, War has always come without warning and without opportunity for adequate preparation. The future safety of America lies in her ability to wage successful defensive warfare until an offensive force can be equipped and trained. As in the past, this country will have to depend upon its citizen soldiers to safeguard its institutions in times of a National emergency.

The service rifle is the pivot around which the entire military system swings. It is the main defensive arm in time of peril. Several weeks are required to instruct a recruit in its care and use. Months, usually years, are necessary in learning to shoot it accurately.

With these thoughts and purposes in mind, an outdoor target practice season for all troops of the Illinois National Guard is prescribed from June 1 to October 31, of each year. During this time, special instruction in rifle and pistol marksmanship is conducted on the various rifle ranges of the State.

These ranges are located at Camp Logan, Zion; Camp Grant, Rockford; Camp Lincoln, Springfield. In addition to the above, ranges are located at Danville, Ottawa, Quincy, Salem, Decatur, Peoria, Ullin and Millington, for use of units of the National Guard located in those immediate vicinities.

Machine Gun Ranges

Facilities for the use of Machine Guns are found at Camp Logan, Camp Grant, Camp Lincoln, Delavan, Danville and Paris.

National Rifle Team Match

The principal attraction of the Target Practice Season is the selection and development of a State Team to represent Illinois at the National Matches, held at Camp Perry, Ohio, during the month of September.

It is gratifying and encouraging to know the results obtained by the Illinois National Guard Rifle Team in the National Rifle Team Match which was held at Camp Perry, Ohio, September 18 and 19, 1925.

Eighty-seven teams from all parts of the United States competed. The Illinois National Guard Rifle Team at this Match for the first time in the history of the State, won a National Trophy. In this connection, the fact must not be lost sight of that the teams from the different Arms and Branches of the service, as well as those coming from other states, were composed of their very best shots. Consequently, the team from Illinois had real competition from start to finish.

Active Service

The Illinois National Guard has been called upon to render active service on many occasions and has acquitted

itself with credit. Many units participated in the railroad riots in 1922, and on several occasions, it was deemed necessary to send troops into Williamson County.

Again when a tornado struck Illinois near Murphysboro and followed almost a straight line eastward through the counties of Jackson, Williamson, Franklin, Hamilton and White, leaving death and devastation behind, the National Guard was first on the scene and staid until its services were no longer required. Its presence protected the homeless, guarded property, sheltered the sick, prevented looting and warded off ghouls, such as only a specially trained, adequate force can do. These detachments truly characterized the citizen soldier in peace, and reveals the vital part which the National Guard plays in times of a great crisis.

The military activities were characterized by efficiency and dispatch. All of the troops employed acquitted themselves with exceptional credit. The service rendered by them indicates clearly the ability and efficiency of the National Guard in an emergency.

Another service rendered by the National Guard was made necessary incident to the extraordinary assemblage of people, who attended the closing services of the Eucharistic Congress at Mundelein, in Lake County.

The service as directed was efficiently rendered. This immense gathering of people was so well managed and handled that there was no serious accident or injury of any kind. The objective was accomplished by the preservation of peace and good order of society and by preventing violations of the laws of the road. The National Guard disposed of this emergency with dispatch and promptly resumed their civilian occupations.

WAR TROPHIES

The National Government allocated to the State of Illinois, a quantity of Captured War Devices and Trophies. Governor Small designated the Adjutant General to superintend the distribution of these trophies

throughout the State. This task was immediately begun upon receipt of first applications. The general rule in the distribution of these trophies was followed by awarding them to National Guard organizations which saw service Overseas during the World War, American Legion Posts, Military Colleges, Cemeteries, Museums and City Parks. In all, several thousand trophies were distributed.

Burial Places of Soldiers and Sailors

Under the supervision of the Military and Naval Department, records are collected, compiled and published, giving information relative to the grave number, lot number, section, cemetery, city and county where every soldier, sailor, marine and army nurse, who served during any war, are buried.

The Federal Government furnishes headstones free for all unmarked graves and the erection of these headstones is supervised by the State of Illinois. Personal visits to and addresses before the different Veteran Organizations, as well as the Convention of the State Undertakers' Association, have been made for the purpose of securing cooperation from all of them. Special acknowledgment is due the American Legion, Veterans of Foreign Wars, United Spanish War Veterans and the Grand Army of the Republic, as well as their Auxiliary Organizations, for the number of reports they have made and the material assistance they have rendered.

War Record Division

Each war has demonstrated more vividly the importance, the value and real necessity of preserving an official and authentic record of every soldier's service. During the time of war, records are of necessity hurriedly written, and with varying degrees of accuracy. It is, therefore, the first duty of a permanent War Record Department to collect these records, and second, to make them as nearly accurate as time and persistent effort can

do. Such is the purpose of the War Record Division, maintained in the Military and Naval Department.

It is believed that the veterans will be glad to know that there is deposited with the records of The Adjutant General of Illinois, a complete record of their service and that they may obtain, upon legitimate request to The Adjutant General, an official certificate covering their service, which will in most instances, take place of lost certificates of discharge.

Memorial Hall

Upon the completion of the Centennial Building, Memorial Hall with all of its flags, and mementos, was moved from the old Memorial Hall in the State House to the new one in the Centennial Building.

It was found that the flags, particularly of the Civil and Spanish-American Wars, were in a bad state of preservation and before they could again be displayed, it was necessary that they should be restored.

This work of restoration has been in progress for nearly five years. It will be entirely completed before the end of the present calendar year. It is the aim to perpetuate the service flags under which Illinois soldiers served, to the limit of possibility, as an everlasting manifestation of gratitude and reverence.

Commissions

DURING the administration of Governor Small, several commissions, committees and other groups have been created for the purposes of investigation, special administration, cooperation and similar objects. Highly important tasks have been performed, some of which have been of an emergency nature for the benefit of the commonwealth.

One of the most important groups was the Service Recognition Board.

SERVICE RECOGNITION BOARD

The proposition to compensate the World War veterans of Illinois, and the beneficiaries of deceased veterans, came before the Fifty-second General Assembly of Illinois in 1921. During that session the law providing for compensation was enacted at Governor Small's request. It passed both the Senate and the House of Representatives without a dissenting vote, and became a law with the Governor's signature. Bonds in the amount of \$55,000,000.00 were authorized to supply funds for payment, and the Service Recognition Board was created to administer payment,—it being given full control of the general plan of procedure. The measure could not constitutionally become effective until it had been approved by the People of Illinois at a referendum. It was approved at the general election of 1922.

This decision of the People, however, was not entirely conclusive, there being considerable doubt as to the limitations of the law. In the State of New York, a similar law had been held unconstitutional. Bond experts advised it would be impossible to market the bonds authorized, until all the points of constitutionality had been definitely adjudicated in the highest court of the

State. This involved a test case of appropriate nature to be carried to the Supreme Court of Illinois. It was not for the Board to secure this decision, so the American Legion of Illinois instituted proceedings in the Circuit Court of Sangamon County and a hearing was had on January 15, 1923; the Bill was dismissed for want of equity, and an appeal was then taken to the Supreme Court. On April 14, 1923, the unanimous decision of the Supreme Court upheld the law and expressed the conviction that payment of compensation in the form provided, was not only a lawful act, but a patriotic duty.

The fact that several months would elapse before the Courts could render a decision on the validity of the law, did not prevent the Board from commencing operations immediately. The first meeting of the Board was held in the office of the Governor on December 7, 1922. The first order of business was, organization. Governor Small was elected Chairman of the Board, Mr. Miller, Treasurer, and General Black, Secretary.

At the outset, the Board adopted the policy of expediting the administration of the law to the fullest extent. This was rendered quite difficult by the insistent widespread demand for immediate payment to the 300,000 estimated beneficiaries of the Act. Necessary plans of operation were quickly worked out. At this first meeting every possible step was taken to initiate action in securing a competent personnel, to assemble and train it in the detailed duties to perform the administrative work necessary to determine the eligibility of claims for payment.

Drawing the First Claim Numbers

There was naturally a vast amount of interest in the order in which applications would be handled. Public assurance had been given by the Board that each application would be given a claim number based on the time of its receipt. Pursuant to such policy, the mail sacks received each day were dated and kept in order. To give a proper public understanding of the method of pro-

cedure, on January 24th, 1923, there was held a public ceremony for the drawing by lot of the first ten claim numbers. This ceremony was attended by the members of the Board, officials of the State, members of the General Assembly and the interested public. The contents of many hundreds of mail bags were made available, and from the thousands of applications received, the first ten claims to be numbered and filed were drawn in order by the following persons:

Governor Len Small,

Lieutenant Governor Fred E. Sterling,

Senator Richard J. Barr, President *Pro Tem.* of the Senate,

Hon. David E. Shanahan, Speaker of the House of Representatives,

Mrs. Alice Vollentine, Gold Star Mother.

Lieutenant Commander Charles W. Schick, State Commander American Legion,

Hon. Oscar Nelson, State Treasurer, (who had been elected to succeed Hon. Edward E. Miller, whose term expired January 1st),

Adjutant General Carlos E. Black,

Mr. Samuel H. Myers, State Commander—Veterans of Foreign Wars,

Master Donald Heter, Son of a deceased veteran.

Personnel and Organization

At the first meeting of the Board a rule was adopted to the effect that all employees should be Illinois veterans or heirs of deceased veterans. There would have been the gravest difficulty in building the organization needed by the Board out of any other group than that of persons who had been in military service, and who were familiar with organization and organized discipline.

Bond Sales

Immediately after the constitutionality and validity of the Bonus Act was affirmed by the Supreme Court, a resolution was passed by the Board authorizing the im-

mediate sale of bonds to provide the necessary funds with which to make payment of bonus claims. It was determined that bonds should be sold in quantities only as needed, in order that the interest charge to the State might be kept at a minimum, and arrangements were made authorizing the issuance and sale of bonds in the amounts as shown below:

Amount of Bond Issue authorized to be sold,
\$55,000,000.00.

	Amount Sold	Premium Earned on Sale.
First Sale—		
May 25, 1923, interest charge $4\frac{1}{2}\%$..	\$10,000,000	\$ 8,000.00
Second Sale—		
Aug. 28, 1923, interest charge $4\frac{3}{4}\%$.	15,000,000	27,150.00
Third Sale—		
Oct. 16, 1923, interest charge $4\frac{3}{4}\%$..	15,000,000	124,500.00
Fourth Sale—		
April 18, 1924, interest charge $4\frac{1}{2}\%$.	10,000,000	19,700.00
Fifth Sale—		
Aug. 15, 1924, interest charge $4\frac{1}{4}\%$.	3,000,000	37,530.00
Sixth Sale—		
Mar. 23, 1925, interest charge 4% ...	1,650,000	*15,194.00
\$100.00 Bonds paid to claimants direct	350,000
	<hr/>	<hr/>
	\$55,000,000	\$201,686.00

* Below Par.

The net premium resulting from the several sales was \$201,686.00, this amount being made available for the payment of claims. The action of the Board in insisting upon par or better in connection with these sales, resulted in the payment of at least 1,000 additional claims.

Under the law the last date for filing claims, aside from those provided in the amendment known as House Bill No. 92, was December 31, 1924, and months before that the number of claims being received, was negligible. During the last six weeks of the year, every effort was made by publicity to get before the public the limitations of the statute. The last day for filing brought in 1,142

applications. The offices of the Board were kept open officially until midnight of the 31st, and claims received before that time were numbered in the usual way.

A bill terminating the Service Recognition Board and delegating certain duties in connection with the payment of claims for compensation, to The Adjutant General was passed by the Legislature. It further provided that all books, records and documents of the Board be transferred to the custody of The Adjutant General for safekeeping, and for the further administration of the provisions of the Bonus Act.

Administrative Costs and Distribution of Credits of the Soldiers' Compensation Fund.

The following exhibits, it is thought, will be self-explanatory. The amount paid to veterans and the administrative cost are well within the reasonable estimate made at the time the law was enacted and the appropriations were made.

DISTRIBUTION OF CREDITS

Bond Issue authorized.....	\$55,000,000.00	
Premiums earned on sale of bonds	201,686.00	
		<hr/>
Total credits	\$55,201,686.00	
Compensation paid to claimants.....	55,073,438.50	
		<hr/>
Total unexpended compensation fund.....	\$	128,247.50

DISTRIBUTION OF EXPENDITURES

COST OF ADMINISTRATION.

Appropriated	\$633,090.00
Salaries and wages....	\$501,689.04
Travel and expense incidental thereto	2,277.95
Postage, office supplies and expense	30,614.36
Printing of Bonds and expenses incidental thereto	14,116.13
Printing and Stationery.	20,100.26

Rental of Quarters, Heat, Light and Tele- phone	\$17,910.43	
Office furniture, repairs and equipment	15,689.31	
Total administrative expense..		\$602,397.48
Total unexpended		\$30,692.52
Compensation paid to claimants...	\$55,073,438.50	
Total expenditures	\$55,675,835.98	

SUMMARY

Number of Claims received.....	286,643
Number of Claims approved.....	267,537
Number of Claims disallowed.....	19,106
Time of payment.....	4 years 3 mo.
Maximum payment	\$300.00
Average payment	\$205.81
Administrative cost per claim.....	\$2.10
Maximum number of employees.....	160
Total administrative appropriation.....	\$633,090.00
Total administrative cost	\$602,397.48
Unexpended	\$30,692.52
Total Bond Sale	\$55,201,686.00
Compensation paid to claimants.....	\$55,073,438.50
Unexpended	\$128,247.50
Grand total expended.....	\$55,675,835.98

Audit of Service Recognition Board

After the existence of the Service Recognition Board had been terminated by law, the Auditor of Public Accounts was requested by the Board to make a complete and detailed audit of all funds handled by the Board. It was found that "the records of the Board were in accord with the records of the Office of the Auditor of Public Accounts and also with the records in the office of the State Treasurer."

In commenting upon the work done by the Service Recognition Board, the Certified Public Accountant who made the audit, stated:

"In an undertaking of the magnitude of disbursing fifty-five million dollars of public funds, it becomes necessary and imperative that there must be exercised both

correct interpretation of and strict adherence to the letter and spirit of the law, governing the particular appropriation, and also a carefully planned office system of internal checks and safeguards for protection against clerical errors or payments of spurious claims and to enable the handling of the task with reasonable dispatch. Our instructions called for a thorough and detailed audit. We, therefore, examined all the records and files of the board in order to verify that properly checked and approved claims covered all disbursements from the fund and that proper checks and precautions had been taken against the payments of unauthorized or fraudulent claims.

It is our opinion that the records and methods used and the final result obtained entitle the Service Recognition Board to commendation and credit for a difficult task well performed."

Illinois Valley Flood Control Commission

Among the important commissions resulting from the Acts of the Fifty-Fifth General Assembly is that of the Illinois Valley Flood Control Commission. This commission has for its object a study of the cause of floods, which in the past have caused losses totalling many millions in the Illinois river valley, and it is charged with conferring and cooperating with other similar bodies or agencies and devising means for flood control in the Illinois River valley.

The commission is made up of Director S. J. Standard, Department of Agriculture, Senator A. S. Cuthbertson, Representative H. V. Teel, and A. T. Dunn, the latter a representative citizen of Beardstown, which city has suffered from the floods in the Illinois river valley as no other city in the State. William F. Mulvihill, Supervisor of Illinois Waterway Construction is also cooperating with the commission.

After much preliminary work the commission has arranged to make an exhaustive study of flood conditions in the Illinois river valley through a tour of the navigable portion of the river, with public hearings at the important

centers in the Illinois river valley. The commission has also arranged conferences with the United States government engineers, members of the Mississippi River Flood Commission and other organizations interested in flood control work.

ILLINOIS EDUCATIONAL COMMISSION

Under the provision of Senate Bill, No. 99, approved June 24, 1921, there was created for a period of two years, the Illinois Educational Commission, for the purpose of investigating the entire educational system of the State, with a view of standardization, unification and correlation of the various efforts, policies and agencies, and to establish such system and methods as are in harmony with the educational requirements of the State and the most advanced educational thought.

The Commission was directed to present to the Fifty-Third General Assembly suggestions on needed revision of school laws; to investigate inequalities in taxation with recommendations of how best to meet this situation; to consider means for securing sources of revenue for school purposes in addition to direct taxation; to investigate the necessity and comparative needs and expenditures for elementary and higher education; to investigate the proper functions of the normal schools; to investigate the present and future needs of the State University with a view of providing university education for all students of the State qualified to enter and desirous of entering the University; to consider the policy of placing all of the State's higher institutions of learning under the management of a single controlling body; to investigate housing conditions at the higher institutions of learning and to consider means of moral and physical, as well as cultural development of the students; to establish a plan of vocational education and determine its place in our educational system, and to investigate any and all other matters that may improve the educational policies and school laws of the State.

Under the provisions of the Act, Governor Len Small was an *ex officio* member of the Commission. Other members were Hon. W. S. Gray and H. G. Giberson, as members of the Senate, Lottie Holman O'Neill and G. J. Johnson, as members of the House of Representatives, and C. M. Thompson, Dean of the College of Commerce and Business Administration, University of Illinois, and W. W. Lewton, Superintendent of the Cicero Public Schools.

In its work the Commission had the able assistance of more than a score of the leading educators of the State, acting as an advisory council.

Investigation of the Commission developed the fact that during the thirty-five years preceding the creation of the Commission there had been enacted no less than "eight separate and distinct laws with fourteen amendments authorizing the organization of as many different kinds of high schools," and that between 1909 and 1922 the State Supreme Court was called upon to determine the legality of the organization of high school districts in at least 142 cases.

The Commission found much to the credit of the State in the manner in which appropriations have been made for the enlargement of the institutions of learning. As an illustration, it was shown, in 1900 the total expenditure for the public schools was fifteen million dollars, while in 1923 the State spent approximately one hundred and fifteen million for the same purpose.

As a result of the work of the Commission many recommendations were made which have since been adopted, greatly to the improvement of the school system of the State in general.

TORNADO RELIEF

On Thursday, March 19, 1925, the morning after the great storm in Southern Illinois, the following message from Governor Len Small was sent to the Senate, then in session, by George D. Sutton, Secretary to the Governor:

Mr. President—The Governor directs me to lay before the Senate the following communication:

To the members of the Fifty-fourth General Assembly:

An appalling calamity has fallen upon our citizens in the southern portion of the State, and reports which I am receiving from public and private sources indicate widespread destruction of life and property unparalleled in the history of the State of Illinois. Every resource at the disposition of the Executive will be used to ameliorate the distressing conditions now existing as a result of the tornado which yesterday visited our southern counties, and I commend the situation to the careful consideration of your Honorable Body to the end that wise and effective measures may be promptly authorized to relieve our suffering people.

Respectfully,

LEN SMALL

A resolution was adopted by the Senate expressing sympathy for the sufferers and their families, and recommending an adequate appropriation for the relief of the people in the stricken areas. Investigation revealed that the loss of life and property was tremendous. In Murphysboro alone the property damage was over \$5,000,000, while the total loss in the entire tornado district was estimated to be approximately \$16,000,000. The total dead numbered nearly eight hundred. The storm did not discriminate, both city and rural districts suffering alike. In fact, in Hamilton and White counties, the rural communities bore the brunt of the storm. Farmers past their prime saw the accumulations of a lifetime swept away in three brief minutes.

From the first, the State rendered invaluable service. Governor Small and the Committee appointed by the House and the Senate made a personal survey of the tornado district, to determine just how the State could furnish most effective aid. Military forces in charge of the Adjutant General furnished medical aid, maintained order, and provided tents for the homeless. The Division of Highways sent trucks to haul supplies and remove debris. The Department of insurance opened offices and considered claims for property adjustment. The Department of Public Health assumed supervision of the water supply and sanitation, instituting measures to prevent the spread of disease. On March 25, the Department of Public Welfare sent a force of forty-five to gather detailed information and compile data for permanent records. The personnel included department officials, field workers, interpreters, clerks, and stenographers.

The emergency relief appropriation made by the Legislature was \$500,000. Later an additional appropriation of \$275,000 was allotted to the Department of Purchases and Construction "for the purpose of repairing, rebuilding, and restoring public school buildings, equipment, and other school property injured, damaged or destroyed by the tornado." Twenty-one buildings were rebuilt or repaired under the supervision of the State Architect's office.

In addition to the valuable aid given by the State in emergency relief, the survivors themselves and their Southern Illinois neighbors must be accorded their rightful share of praise, for the spirit that prevailed throughout the devastated area was one deserving highest commendation. Undaunted by their harrowing experience, they worked for days without thought of food or rest, helping to recover the dead and alleviating the suffering of the injured as best they could. Many incidents of heroism were recorded.

In the work of reconstruction and rehabilitation, the entire nation seemed to have loosened its purse strings, and for the outside aid so generously and voluntarily

given, the State of Illinois extends its proudest thanks, in behalf of the grateful people of the storm region—a region now restored from ruin and desolation to beauty and prosperity.

RELIEF—CYCLONE SUFFERERS

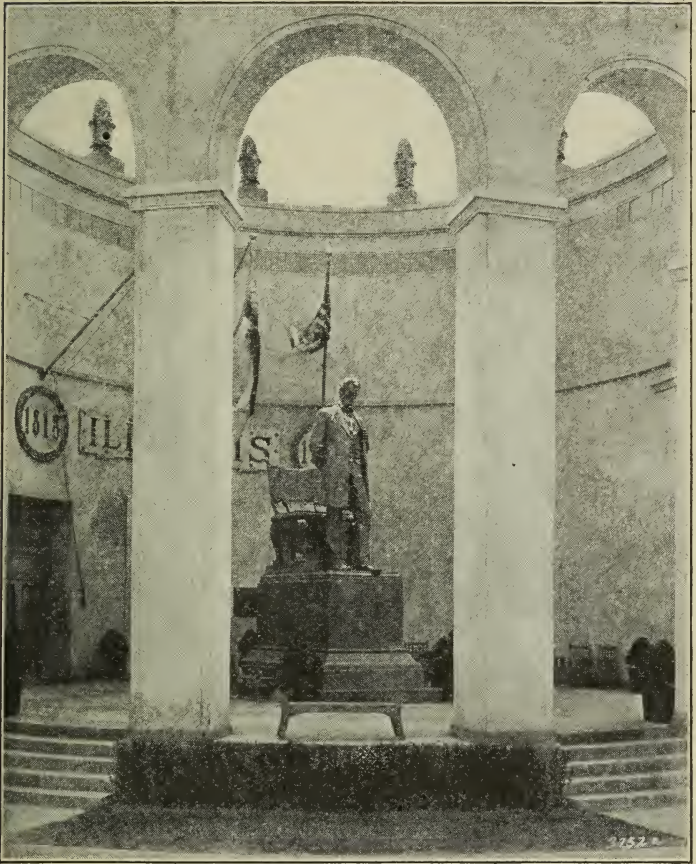
A cyclone of wide area, but not nearly so destructive in life and property as the storm that devastated a large portion of Southern Illinois in the spring of 1925, swept across Carroll, Greene, Sangamon, DeWitt, Logan, Macoupin, and McLean counties on April 19, 1927.

This was the storm in which Miss Annie Louise Keller, of White Hall, teacher of the Centerville school, near Carrollton, in Greene county, by great presence of mind, saved the lives of her eighteen pupils, and in doing so lost her own, by an act of heroism that attracted state-wide attention and drew forth resolutions of respect from the Illinois Legislature. Her memory is perpetuated by a monument erected in her honor at White Hall by those among whom she lived and others throughout the State.

The Senate approved a Bill providing for the creation of a Committee to be appointed from the members of the House and Senate by the Governor, to furnish temporary and immediate relief to the area visited by the cyclone. Adequate appropriation was made and expended in extending relief to families and individuals, many of whom had lost all they possessed.

SESQUI-CENTENNIAL COMMISSION

Of the various organizations functioning under Governor Small's guidance, The Illinois Sesqui-Centennial Commission, which created the State's magnificent building and display at the Philadelphia Sesqui-Centennial International Exposition in 1926, wrought exceedingly well.



Replica of St. Gauden's statue of Abraham Lincoln, Illinois Building, Sesqui-Centennial Exposition, Philadelphia. The Illinois Building was awarded the certificate of highest merit in competition with buildings representing the other states of the Union

Of the \$150,000 appropriated for the expenses of the Commission and its work, slightly more than \$50,000 was returned to the State treasury unspent.

A statue of Abraham Lincoln in a specially constructed rotunda was a feature of both building and

display. More than 120,000 visitors from all over the United States and the world signed the registry book at the building. Countless other persons visited the building.

For its "Official Building and Generous Participation," the Exposition's grand prize certificate of award was given. The agricultural exhibit, composed of displays of small grains and other agrarian products of the State, was awarded the first prize gold medal for agricultural exhibits.

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ILLINOIS PROGRESS, 1921-1928. SPRINGFIELD



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